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The New Mexico Quarterly

EDUCATIONAL ENDS
JAY C. KNODE

WHITHER AMERICA?
J. B. MONTGOMERY-MCGOVERN

KAMYA *(A Story)*
JOSÉ GARCIA VILLA

SECTION OF POETRY

BOOK REVIEWS

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The Fable of the Farmer and the Scientists*

A Psychologist's Examination of Scientific Method

By Richard M. Page

Once upon a time there was a Rustic whose Erudition was not great, but whose years of Experience had taught him to keep his Feet on the Ground. Straying somewhat from his Bucolic Environment, he once encountered two Mysterious Strangers who engaged him in conversation. They eventually inquired whether he would be willing to lease a certain barn on his property for their use.

"And what be your business, Gentlemen?" he inquired.

"We, my good man, are Scientists," one of them replied. "We need a large Room in which to conduct a Scientific Experiment."

"Wa-ll now," answered the Farmer, "and what be you trying to find out?"

"Well, you see you would be unable to Comprehend so deep and complex a Problem, but we are searching for a Universal Solvent," was the reply.

"Oh, I guess I see what you mean. I reckon I can figure that out. But say now, just supposing you do get it, what be you a-going to keep it in?"

Moral: A problem is not necessarily scientific merely because it has been raised by those who call themselves scientists.

Indeed, the scientist faces no mean task in deciding upon the appropriateness of a given problem for scientific investigation. Does the question rest upon assumptions contrary to scientific principles? If so, is this because the problem has not been clearly thought through, or may it be that established science itself is in error? Is the meaning of each word in the question's phrasing unmistakable,

*Read before the University of New Mexico Academy of Letters, Arts and Sciences.

or may more than one connotation be put on some of the terms? Is the problem amenable to investigation by the methods of science? These are a few of the many questions to be answered.

In considering questions such as these, we must also raise the parallel of one inquiring about scientific method itself. Is the current formulation of scientific method deserving of reverent observance in all problems and under all circumstances? This question leads us into inquiring whether there actually is a universally acknowledged code of scientific method, and, as psychologists, whether our science is obliged to observe such a code if we do find one.

The matters of scientific problem-setting, and scientific method-determining constitute a combined field of inquiry more or less unique among human institutions in that they are not capable of being studied scientifically. Genesis, Revelations, this year's All-American or public sentiment on Companionate Marriage are all subject to scientific scrutiny, but the methods of science are necessarily beyond the pale of their own critical appraisal. The situation resembles that in the field of mathematics in which postulates are utilized in proving theorems, but in which the theorems thus proved cannot be turned back upon themselves to verify the axiom or postulate. Given a codification of rules governing the type of investigation known as scientific, we may study many diverse phenomena under its guidance, but to demand that the code itself be examined or checked by its own means would be like feeding a hungry serpent its own tail. We are thus at the mercy of individual and personal subjective judgments in treating these important and fundamental issues.

Thus it is that the generalship of science has brought order into all it has touched, but the scientific arena itself is in confusion, and the stage for countless battles between warring camps. In psychology alone, Madison Bentley has compared the tumult to the confusion of tongues on the Tower of Babel. (Presidential Address, 1925). The mem-

bers of the same sects understand each other reasonably well, but are completely at a loss to interpret the laryngial behavior of the other denominations.

We have seen the logical absurdity of expecting scientists as scientists to determine the conditions of scientific method; let us now give our logic empirical confirmation by examining the fruits of such attempts as shown in recent scientific writing. Since the question of what constitutes a legitimate scientific problem is implied within the question of scientific method, we need only examine the attempted formulations of that method as set forth by a number of our leading scientists in order to satisfy both portions of our original inquiry. We are attracted first by a statement of the aim of science as set forth by the eminent Karl Pearson, in the preface to his second edition of *The Grammar of Science.*

"That all science is description and not explanation . . . . will appear platitudes to the next generation." And on page 333 he states again that "Science answers *no, why* —it simply provides a shorthand description of the *how* of our sense-impressions."

Then for immediate contrast, let us take a somewhat longer quotation from Wolfe's *Conservatism, Radicalism and Scientific Method:*

"In this sense an accurate, objective description of the state of a city's streets, or of the physiognomy of thieves may be 'scientific.' A monograph describing the distribution of population by sex, age, conjugal relation, etc., is scientific in this descriptive sense. . . . But in a more accurate sense, such descriptive productions are but the raw material—the factual data—necessary to analysis and solution of problems of cause and effect—the problems which are now of primary interest to us.

"We want to know *why* the streets are in the condition described, *why* the demographic distribution of the population is what it is, why discount, and suicide, and death rates fluctuate as they do. And, to the extent that we are

objective and scientific, we desire solution of these 'whys,' these causation problems, not in the personalistic praise-and-blame terms of the popular-minded and usually more or less propagandistic conservative or radical, and not in terms of 'final causes,' which explain nothing, but in terms of impersonal, phenomenal correlation and sequence. . . .

"The old geography which our parents and grandparents studied, to take another illustration, was a dry catalogue of rivers, cities, boundaries and commercial statistics. The study of geography today, in good schools at least, has to do with causal relations between man, or human culture, and the physical environment—a much more interesting, as well as an infinitely more important study."

Some would go further and deny the name of science altogether to mere description, no matter how refined or impersonal. Havelock Ellis thus quotes Dr. Charles Singer on pages 70 and 71 of his *The Dance of Life*. "Singer refuses the name of 'science' in the strict sense to fields of completely organized knowledge which have ceased growing, like human anatomy (though, of course, the anatomist still remains a man of science by working outwards into adjoining related fields), preferring to term any such field of completed knowledge a *discipline*." He now regards science as "the process which makes knowledge," or the "growing edge between the unknown and the known."

Pearson and Wolfe, then, represent fundamentally antagonistic views of the aim of science. Each view has its adherents, and we see the first great schism in the ranks. These differences in aim are reflected in corresponding differences in delineation of method. We shall examine several representatives of various types, with no attempt, however, at classification.

Bernard Hart, in his *Psychology of Insanity*, page 12, says: "If we analyze the procedure by which this (Kepler's) law was ultimately reached, we find that it consists of three successive steps: (1) The collection and

recording of facts; (2) the classification of these facts into series or sequences; (3) the discovery of a short formula, or 'scientific law,' which will enable us to describe these sequences of facts in the most comprehensive and convenient manner. This is the method of science, and whatever the subject may be it is the sole method which science ever employs."

Huxley, in *Man's Place in Nature,* uses a more elaborate formula: (1) "Observation of facts—including under this head *artificial observation* which is called *experiment.* (2) That process of tying up similar facts into bundles, ticketed and ready for use, which is called *Comparison* and *Classification,*—the results of the process, the ticketed bundles, being named *General Propositions.* (3) *Deduction,* which takes us from the general proposition to facts again—teaches us, if I may so say, to anticipate from the ticket what is inside the bundle. And finally—(4) *Verification,* which is the process of ascertaining whether, in point of fact, our anticipation is a correct one."

W. Stanley Jevons, in his *Principles of Science,* shows that merely passive observation of facts is not always adequate even as the first step. "Even when we are engaged in apparently passive observation of a phenomenon, which we cannot modify experimentally, it is advantageous that our attention should be guided by some theoretical anticipations. A phenomenon which seems simple, is, in all probability, really complex, and unless the mind is actively engaged in looking for particular details, it is quite likely that the most critical circumstances will be passed over. Bessel regretted that no distinct theory of the constitution of comets had guided his observations of Halley's comet; in attempting to verify or refute any good hypothesis, not only would there have been a chance of establishing a true theory, but if confuted, the very confutation would probably have involved a large store of useful observations."

Further evidence of the subjectivity of the processes involved in the defining of terms is seen in Henry C. Link's contribution to the problem. Link is an applied psychologist, and his definition savors of his personal bias. In his *Employment Psychology*, page 11, he says, "A scientist is one who can formulate and apply *standardized* knowledge in a given field. And the scientific method is a method by which knowledge is standardized and refined far beyond the ordinary powers of the human mind. . . . Science consists of the application of an exact and refined method to the study of the facts, with the result that we have knowledge which has two chief characteristics: first, it is relatively free from the inaccuracies and prejudices of the unaided human faculties; secondly, it is standardized knowledge; that is, knowledge which can be transmitted in unambiguous form from one person to another, or from one time to another." Nothing is said of the discovering of laws; the interest lies in application.

Although Titchener occupied a unique position in contemporary psychology, he stressed one phase only which is more or less slighted by other writers. In addition to *disinterested* observation, he emphasizes the importance of *analysis*. Of course, this phase was implied by others; it is merely discussed a little more explicitly than usual in his statements. Since his entire system of psychology and his experimental methods constitute an outstanding example of analytic practices, we can readily understand his doing this. The Gestaltists, on the other hand, would deprecate such a view and stress the importance of synthesis.

Bode discusses scientific method in his official capacity of philosopher, but aside from adding historical unity to the problem, he contributes little more than the observation that scientific procedure consists of examining the exception to "natural law" rather than its faithful operation. So long as accepted natural law is not openly violated in nature, there is no call for research. Scientific attention is attracted only by the delinquent events.

Knight Dunlap in his *Mysticism, Freudianism and Scientific Psychology* has presented a remarkably sound outline of scientific method. This outline will also be found in an abbreviated form in his *Elements of Scientific Psychology,* page 28. The former reference is rather long for our purpose and the latter is too brief; so we shall abstract his discussion in Chapter 3 of the first named book.

He offers five rules which are said to be fundamental to scientific method. First: science must start from an empirical basis of the facts of experience, and must constantly correlate its processes and its productions with these facts. Second: science must form *working hypotheses* into which the observed facts will fit, and which therefore "explain" the facts without distorting them. Third: the working hypothesis of science must be subjected to experimental investigation in so far as that is possible. Fourth: verified hypotheses, or verified details of hypotheses, must be guaranteed by *proofs* and scientific *proof* is a definite method which is sharply distinguishable from historical proof or proof in the popular sense. Fifth: throughout the operations of scientific method, extreme care must be paid to the significance of terms.

Jared Sparkes Moore, in his *Foundations of Psychology,* speaks of Louis T. More's agreement with Pearson in denying explanation to the scientist. On page 96 he quotes from More's *Limitations of Science:* "Men of science have two principal functions to perform; first, to observe the phenomena of the world, and when certain connections and differences are found in these phenomena, to classify them under laws. (Not, as Moore points out, *to explain* them by reference to laws.) But, allured by their great and legitimate success, they have also tried to discover the hidden causes of phenomena, with the result that a sort of fictitious world has been created by them, in which the laws of objective, or physical, phenomena are inextricably confounded with the deductions of subjective psychology.

Science is metaphysical, and at the same time pretends to supplant metaphysics."

Moore then presents his own analysis of the stages of the scientific method in what appears to be an unusually complete outline:

"STAGES IN THE SCIENTIFIC METHOD

I. THE ACQUISITION OF FACTS: *Observation*

II. THE DESCRIPTION OF FACTS:
   1. *Definition and General Description.*
   2. *Analysis* of the facts into their constituent parts or factors; ultimately into their *elements.*
   3. *Classification:* arrangement of the facts into classes; ultimately, into a *system* of all the facts of the assigned group.

III. THE EXPLANATION OF THE FACTS
   1. *Formulation of Laws:* determination of causes.
   2. *Application of the Laws:* reference of facts to their causes."

The most striking lack in the scheme is the failure to emphasize objectivity and the impersonal, distinterested attitude. Perhaps this is to be assumed, although it seems that it really deserves a place in the outline. Pearson devotes a great deal of time and space to a consideration of this phase. The chief aim of more than one of Bertrand Russell's works appears to be the presentation and elaboration of this idea. It also runs through some of Santayana's works and those of James Harvey Robinson. What appears to be another striking oversight is his failure to give credit to the recognition and formulation of the problem as being frequently the chief contribution. This step precedes step one in his outline and should be regarded as fundamental to it.

It is strange that in all this strife and turmoil there should be such antipathy toward the single discipline which attempts a synthetic and comprehensive view of the whole. Philosophical discussions are scorned as being not merely abstruse, but futile as well. Metaphysics is the standard swear word of the scientist, and the butt of many of his jests.

It appears that those who have studied scientific method the least, are the ones who feel most certain that they know all about it. The writers who have most to say about being scientific are the most likely to be näive in their thinking. In biology, the mechanists such as Loeb and Haeckel, and in psychology, the more excited type of behaviorists, such as Watson, fall readily into an uncritical naturalism.

Perry, for example, in his *Present Philosophical Tendencies*, quotes as follows from Haeckel's *Riddle of the Universe:*

"The irresistible passion that draws Edward to the sympathetic Ottilia, or Paris to Helen, and leaps over all bounds of reason and morality, is the same 'unconscious' attractive force which impels the living spermatazoon to force an entrance into the ovum in the fertilization of the animal or plant—the same impetuous movement which unites two atoms of oxygen for the formulation of an atom of water." This is obviously nothing but pure inference on Haeckel's part. As a scientist, he is entitled only to record these observed instances of so-called attraction.

The behaviorists unhesitatingly postulate a "real" physical world, and demand that psychologists refrain from all terminology which is not strictly objective. Some do this largely out of their earnest desire to avoid any sort of Theism; to keep the spooks out of their science. This may be commendable enough in itself, but it leads them into affirming the very things or events which modern physics is denying! The events labeled "objective" by the behaviorist turn out to be subjective, in the sense that they are inferential, and the despised images and sensations, in be-

ing at least empirical, are our closest approach to an objective reality. Science should be objective? Perhaps so, but we must first agree upon what is meant by that adjective.

We must admit now that two divergent approaches to the study of scientific method are open to us. If we wish merely to learn what passes currently as scientific method, we shall need to rescind our original assertion that the study cannot be carried out by scientists as such. They need only collect observations, and classify them. It is when we want to know what scientific method *should* be, that we must turn to other sources of information. The difficulty is that scientists describing their community practices have not restricted their efforts to the observational and inductive method, but have insisted upon telling us what science *ought* to do.

Perhaps results obtained by the strictly scientific technique have not been published because they would prove too embarrassing to the scientist. A description of contemporary scientific method arrived at by observation of the antics of scientists might even read like this: (1) Get a brilliant hunch from your colleagues or former teachers and expand it into a new and revolutionary doctrine. (2) Invent an experimental situation which will be likely to bear out your a priori conclusion. (3) Announce your results in a loud and earnest manner, meanwhile denouncing all earlier results conflicting with your own. (4) Defend your point of view from assaults of your colleagues by the simple expedient of ignoring them, or if you are sufficiently clever, by the much more honorable trick of detecting holes in your assailant's technique and by parrying his thrusts back against his own side. (5) Invent another experimental situation, proclaim your results, vilify your opponents, and so keep up the merry whirl.

If we take the other approach, and inquire what scientific method *ought* to be, we plunge, for better or for worse, into the depths of philosophy. This classic study, unfortu-

nately, can tell us a great deal more about what we may not accept than it can about what we may. Although philosophy penetrates the fallacies of science, it has no divine source of wisdom from which to draw aid in the formulation of a more valid code of scientific method than now exists. We have already observed the disputes of scientific workers as to the methods and problems of their discipline. We would find the philosophers in no better a position to help, unless we are willing to call their disclosure of errors in all camps constructive.

We took occasion above to criticize Moore's outline after the fashion of one scientist criticizing another. Your philosopher would go further and point out that there isn't a single element of his outline that is not above criticism, or that shouldn't at least be expanded into a chapter to avoid misunderstanding. What is meant, for example, by the observation of facts? Are facts primary sense data, or are they statistics? And just what is observation? How are we to analyze facts into their elements? For that matter, what can we mean by an element, and how do we know they reside in "facts?" Entire volumes have been written in an attempt to answer some of these questions, but they have not been read by the average propounder of an outline of scientific method.

We started this paper with an inquiry as to what constitutes a scientific problem. That led us to the question of what it is that distinguishes the scientific method from other methods of investigation. We are now about to close our efforts without having found an answer to either question.

That, I think, is as it should be. The mark of wisdom is not to know; nineteenth century mathematicians *knew* that heavier-than-air machines could not fly; real insight belongs to those who know not and know that they know not. The true scientist refrains from dogmatism with respect to his theories and conclusions; he cannot afford to be less careful regarding the fundamentals of scientific method itself.

Kamya

A Story of Old-Time Philippines

By JOSÉ GARCIA VILLA

. . . . For a woman knows best the trueness of love, its wisdom, its song. Only a woman can find sweetness in the tyranny of love—only a woman understandeth love that is too great.

This I know, because I have seen it in the light of their eyes, in the little sweeps of lashes soft even in desire. Men catch not this little light—for it is too tender, too elusive, for their grasp—but failing to catch it, is it not more beautiful so?

Even as a white flower turneth to a darksome hue as it withers, even as a tame dove may still bite with its beak —so, also, man must hurt. For it is in the hurt, in the magnitude of the wound—as in the color it brings to the cheeks, in the ectstacy it releases—that love's true greatness is measured.

And this is the story I have to tell you:

* * *

None in the whole tribe of Rajah Soliman was there more beauteous than Kamya—none so fair, none so loved. The waters of the Pasig bathed no fairer form—the winds of evening caressed no lovelier being. Broad of brow was she, and narrow of waist, her lips a soft cool red, humid, as if always ready for a kiss. A nest of starless nights she had in her hair, and in her eyes the glory of many sunsets. Full were her breasts, and slender her arms, and soft the lilt of her gait, like a dream of flowers.

Of her the young men said: "For her the snakes of my arms—for her the flames of my lips!"

"The crook of my arm against her neck—and her little hands be birds to peck upon the iron of my breasts!"

"The touch of our lips for the envy of your eyes—and for you also, O Scum of Lovers, the dust of our feet!"

These to one another they said, these youths, full of young vigor and conceit, eloquent with love—that each should know who wanted who.

But of all those who dreamt of Kamya, two there were who loved her most. And their names were Mabi and Isagani.

Young were both, and handsome and strong—but like the bee was one, and the other like a faraway, lonely star. Like a bee was Mabi, untiring, buzzing, sweet of mouth and sweet of arms. A warrior he, bold and brave, gaudy of clothes and gaudy of love.—And Isagani like a faraway, lonely star—silent, earnest and reserved. Locked were his lips, bare of words; and when he spoke, he spoke short—no music went with his words.

If to Kamya Mabi said, "Why so dark thine eyes, O Sweetness, why so dark? Open them, O Delight, to the sunshine of my love!"—Isagani only said, "I love you." And he went no further than that.

And the eyes of Mabi had desire, the light that is cruel and yet which a woman loves. The eyes of Mabi looked at her with a demanding glow—said to her, "Why don't you suffer yourself to me, O Kamya? I will be a man to the woman of you—because I love you!"

But the eyes of Isagani—sad and faraway, seeing things one could not see—said nothing, demanded nothing—were a blank—made a woman wonder why they were eyes at all. Isagani, when he looked at her, looked *beyond* her, did not stop at her—but went *on*. A woman, when a man looks at her, wants him to look *at* her, not through her; wants his gaze to *stop* at the beauty of her.

And every night, whether the moon was low and red ,or high and golden, and even if there was not any moon at all —for light is not necessary to lovers—Mabi was with Kamya. And he had many things to tell her, and he told them to her softly, with the cadence of music in his words:

"And the bloodspilled flower is not redder than thy lips, O Petal of the Moon—nor yet the night darker than

thy eyes—nor yet the young wind softer than the silk of thy voice . . ."

And Kamya listened enthralled, swept by the magic of his words, by the graceful rhythm of his tongue, and learned to respond to the fire in his eyes, to the cruelty of his arms—to respond as a woman should.

While not far away, near the cool waters of the river, in a crude little hut, Isagani, tired of the day's labour, lay on his bed of bamboo, ready for sleep.

For during the day a bender of metals, a master of fire, a maker of blades was he. Fine blades he made, of various designs—some massive, some light—for the hard shell of nuts, for the soft flesh of fruits—for hunt, for sport—for passion and for love.

An artist was he with hammer and fire, soft his fingers in the fashioning of warm metal into blades, finished and glittering—daggers and knives and scimitars, and anything with a blade to it—of steel and brass and silver.

Steel and brass and silver—yet none of gold. And this was his dream: some day to have gold enough to fashion of it the slenderest, beautifulest knife hands ever shaped. And to lay it before her feet—Kamya's—to show to her how much he loved her. Like unto gold his love—rich and beautiful and worthy of her.

And there came a day when he had gold aplenty to begin his knife. Many long days he stood beside his fire, beating carefully the gorgeous metal with a fondness borne of dreams. And when the blade was finished, nothing was there ever like it, nothing ever so beautiful, nothing ever so exquisitely wrought. He himself was amazed at the glorious magnificence of it, and great pride filled his heart.

But when his neighbors heard of it they were not amazed but felt amused. They had never heard before of a knife of gold, and surely one who made it, a useless thing, was a fool. They flocked to his home and asked that they be shown the knife, and when Isagani, who was proud of it, showed it to them, one of them asked:

"A knife of gold, O Blacksmith—what for? It breaks easily—gold is too soft."

"Only I," said Isagani, "may understand a knife of gold."

"Gold for bracelets, and rings, and cups—but not for knives, O Silent Blade!"

"Gold is—beautiful."

"Must a knife be beautiful?"

"Some knives—must be beautiful."

"As—?"

"The knife of the poet."

"The knife for a man like Mabi? His lips are soft, his words are songs—"

"Not his kind of a poet," said Isagani.

Then they laughed because they thought he was jealous of Mabi.

* * *

The next day, as Kamya passed in front of Isagani's hut, on her way to the river to bathe, he called to her, and she stopped on the road. He walked up to her, a quiet longing in his eyes, and invited her to come in. They walked together to his hut.

And Kamya liked the wistfulness of his eyes, and when she saw a stray lock of hair on his forehead she wanted suddenly to touch it, to caress it and push it back. Even if Isagani was not sweet of tongue and his arms were not bold, even if he was undemonstrative and but seldom came to see her, still—once—he had told her he loved her—she was loved by him . . .

"I made for you—something,"he told her pridefully.

"For me?" she asked, a glitter in her eyes.

"For you."

And he fetched the knife of gold from where he kept it, and fondled it in his hands.

And Kamya gazed at the wondrous beauty of it, and she was glad to know that Isagani had made it for her. She

also was proud of it—was proud of him. She lifted her eyes to him.

But his eyes stayed on the knife. On his face there was nothing but pure adoration. He did not take his eyes off the blade. There was not even a little look for her.

And Kamya's hands, held out to receive his gift, fell slowly to her sides. So that was how he loved her. The knife was more precious to him than she. That was not the way a woman wanted to be loved. Loved like chattel—loved less than chattel—than a mere blade.

And she had thought he really loved her, even if he was silent, even if he saw her so seldom. Love—what did he know of love, beyond saying, "I love you?" Why did he say words he did not understand? What worth was there in a man who had eyes for a blade—but not for a woman? What if it was a blade of *gold? Gold or not, what did a woman care?* A woman cared for what a man gave of *himself*, not for that which was not *him*.

"Will you not take it?" he asked her now.

"No," and she laughed, "no, O Lover of Blades. I care not for knives, O Blacksmith—not even for a knife of gold!"

And she ran away, hating him.

* * *

That night, when Mabi once again held her in his arms, he was cruel with her. His arms were strong—strong as Isagani's—but stronger still, for they knew how to curl round a woman. His face was handsome—even as Isagani's—but handsomer still, for it was close to a woman's . . . . And Kamya knew that Mabi truly loved her.

* * *

When some days had passed, as Kamya stood one sundown near the riverbank, under a clump of dense bamboos, she heard a rustling of leaves behind her and turned to look.

It was Isagani.

She was silent for a long while, and only gazed at him blankly. His eyes lowered.

"What do you want, O Sad of Face?" she asked at last.

"I love you," he whispered, and his eyes were soft.

A slow cruel smile curved her lips.

"How could you love me," she taunted, "O Colder than a River Pebble?"

"I know I love you—I want to marry you," he said.

"You have never shown me you love me, O Virgin of Lips."

"How can I show it to you?" he asked her simply.

"Then you know not how to love, O Unloverly Lover."

"Maybe I know not—and yet I love you, O Kamya."

"A man," Kamya said, searching deep into his eyes, "a man—*must know how to love.*"

"Will you not marry me then?"

"No, I will not marry you. You do not love me—enough."

* * *

So it was that Kamya promised herself to Mabi—to Mabi, the bold of war and the bold of love, whose voice was song, whose words were tales, whose arms were snakes and were not shy to hold a woman.

And the whole tribe rejoiced over the news and prepared gayly for the event. New songs were taught, new games invented. And the old women began their work of counsel, advising young daughters on the art of womanhood, that they should practice it on the great awaited day—when the young men were about in their best attire, their eyes keen and sharp, searching for the girl with the right shine to her eyes, the right note to her laughter, the right lift to her step. And the young men exercised hard their muscles that they should appear strong and comely, and so win the girls of their hearts' choosing.

Yet while all prepared and were happy, one there was who was silent and hurt, and went away into the woods. He was young, this one, and handsome and strong, and his name was Isagani.

In the woods, to the birds, to the cool soft winds, her name he cried, of the girl he loved—softly, tenderly—for great was his love for her—infinite—inarticulate and unproved.

He called, "Kamya—Kamya," and there was no answer to the immensity of his grief. He went on repeating her name, because her name was beautiful, even as she herself, even as the hopelessness of his love.

And on the day for her wedding he came back. Weak were his steps, dead the lustre of his eyes. And he heard the new songs sung, and saw the young women and the young men merry—he saw the new house of palm leaves and bamboo, built for the pair to be wedded—and the agony in his heart became like unto merciless fire, searing, scorching, burning the whole of his being. And in this moment of despair he ran to his hut and thence to her home.

He knocked at her door, and she came out to him, lovely and cold.

He told her no words but took her swiftly into his arms, and kissed her once, the first time, and cried her name, "Kamya! Kamya!"—and then she was limp in his embrace, and fell to his feet, gorgeous with blood. On her young full breast glimmered in passionate glory his knife of gold, and its point was in her heart.

At first there was a twitch of great pain on her beautiful face, and her eyes closed painfully, but when she opened them again their gaze fell on his weapon of love, and now her gaze lifted, to meet that of his eyes—to show to him the dawn greater than any of God's dawns, in the wetness of her eyes—in the softness there—in the understanding there.

And she called his name, and called it again, and her voice was new to his ears, and he wept for what he had done.

"I'm not sorry, Isagani. For me—you chose—your beautifulest knife. Of steel—and brass—and silver—have you—*but for Kamya—the knife of gold . . . . You love me.*"

The Sheepherder

By O. REUTINGER

Felipe's slow smile welcomed me. One hand
To gently wave the barking dogs aside,
The other to clasp mine—a subtle band
Of friendship that we knew need not be tried.
Sitting before his tiny fire we'd smoke
And criticize the cities' worldliness
Then knocking the ashes from his pipe, he'd joke
Away all sophistry and devoutly bless
Good San Ysidro for his watchful share
In guidance to the flock. Sincere and pure
Was his belief in the santos' care
And I of my gods could not yet be sure.
His roughened hardships were much worse than mine,
Yet my philosophy was not as kind.

A New Mexico Sandstorm

By MAUDE DAVIS CROSNO

Wind, blow!
Roar, dust-whirler, roar;
Mighty marshaller of sand,
Race across the endless mesas;
Whip against the city houses;
Whirl each grain of sand with violence.
There is no rest.

Gasp!
For the moment die;
Then play at ease;
Touch the greening grass
And pass—a gentle, mocking laugh.

Shriek!
Wind, blow!
Fierce with lashing sweep—
Cross the town of bending trees,
Then lift the sand dunes as you please.
We feel your stinging breath;
Your power is felt

Laugh!
Mad with rage,
Wailing with discontent,
You fling yourself against the world
With control.

Slow, still,
Weak your breath;
One last fling of sand against the sun,
And then your death.

Educational Ends

By JAY C. KNODE

THE distinction between wisdom and knowledge, and that between "being" and "doing," no doubt because they are related distinctions, are of ancient origin, but every new generation has to relearn them by experience; they are not of the sort that need but to be indicated in order to be comprehended. One is tempted, despite the danger inherent in the use of such near-analogies, to point out a familiar parallelism or concurrence in mental and physical life. The cycle is complete (temporarily) only as there are both taking in and giving out. Oxygen and albumen are first *in*haled or *im*bibed. With the release of their energy they motivate both physical and mental *expression*, but for the latter form there must have been also previous *impression*. Human beings are avid of impressions, even though in varying degress, but the urge to some form of expression is just as imperious. The manner of this cycle of mental life is as diverse as are human beings themselves, yet it is seldom so far from the orbits of normal lives as not to be intelligible, at least. In the artist's creation appear the outcomes of his minute observation; the inventor has mastered a multitude of mechanical details; the output of the scholar represents arduous periods of garnering; the statesman has learned the laws of social relationship; the prophet does not prophesy well without long seasons of communion with God. Such are some of the highest and most successful forms of expression. Below them lie the great multitudes of forms of the workaday world—the mediocre, the inadequate, the ridiculous, the crude, the pitiful, the malevolent. Nor is this process of impression and expression, of getting and giving by any means always balanced. We have both dreamers and demagogues, both theorists and charlatans.

Between the act of inhaling or imbibing and that of the expression of physical energy is the process of oxidation or digestion; between mental impression and expression there may intervene the process of reflection upon final values that may in turn be attended by a kind of alchemic emotion. Those who insist upon the validity of the distinctions mentioned at the beginning have sensed the effect of this intervening process, this reflection, comprising usually more than mere exercise of logic, that begets wisdom and that manifests itself in the "doing" which follows.

A short generation ago science invaded the field of education. Thinking educators discovered that the great mass of their practices and conclusions were based upon *a priori* assumptions; they actually knew little about the processes of human learning and its outcomes. And the more the situation was studied from such a point of view the more egregious became the lack of the knowledge of facts. Men and institutions dedicated themselves to the study of children and adults, not as mystic, "spiritual" beings, but as objective performers, and a "science" has emerged. But like all movements, however commendable or urgent their initiation, this one can be driven into tangential aloofness from life. The time has come when it should be said, (and educators in increasing numbers are saying it), that teachers colleges, "educationists" and public school administrators the country over have been one-sided —to some the word "bigoted" could more aptly be applied— in their devotion to the process of making education a science. There can be no doubt that science belongs in education; and the more scientific education can be made the better off we shall be. The trouble is that educators, having set out to find the facts and having been compelled to fashion new vessels to contain and to measure them, have so industriously weighted themselves down that they have lost both headway and sense of direction. Life (and consequently education) will not be solved merely by piling

up facts. Reflective thought and emotional appreciation must play large parts.

Now the classroom product of the real teacher, I think it need hardly be argued, will show both this kind of thought and this kind of appreciation; in it will be found a wide variety of reflective and emotional experience that will make itself felt by means of at least four major qualities; namely, (1) mastery of a subject; (2) presentation of subject matter so as both to facilitate its comprehension and to stimulate the learner to further study in the same field; (3) power to relate the given field to present-day problems of living; (4) power to relate it to great ideas of all time, wherever or however presented.

Experience in college work has raised in my mind a good many times the question if certain inferiority complexes with respect, particularly, to English and mathematics were not the result of stumbling elementary school teachers. Once one is called upon to make explanations beyond one's capacity, the human tendency is to pass hastily over the situation, to escape by way of meaningless generalities. Probably every teachers has been guilty of the practice upon occasion. But the emotional, to say nothing of the purely intellectual, effect upon a group of children, must be inevitably a shrinking away from such disturbing experiences. The teacher's feelings in the presence of her difficulty perhaps communicate themselves to the more sensitive members of her young audience, but, even though they do not, the child's experience of bewilderment can never be free from emotion. And once having had that emotion fastened upon him in association with a given subject, he becomes henceforth handicapped in its presence.

In order to be able to present subject-matter both clearly and in such manner as to arouse within the student a desire to follow the lure of it beyond the classroom, a teacher, first of all, has to work at his teaching. He must believe it well worth his while, he must enjoy oral presentation, he must bring to it the glow of deep-set purpose, and

he must possess in some degree that vigor of personality which demands and holds the attention of listeners. Now not all teachers, it must be evident, are thus endowed or motivated; and, anomalous as it may sound, a good many teachers in teachers colleges are not interested in teaching their own classes. I have heard administrators, after sitting through classes under these poor teachers, say that if ever they found a member of their high school faculty doing that sort of classroom work, they would discharge him forthwith.

The ability to show how a given field of thought has connection with contemporary problems, and the ability to show its relation to the problems and the attempted solutions of the past apply, perhaps, most vitally in higher education. There is discernible a difference of attitude on the part of the "educationist" and the "regular" college professor. The former takes pride in the contemporaneity of his presentations, the latter stresses the necessity for background. The former will urge that past usages and past ideas have no sanctity for him because of their age or ancient respectability; the latter charges people in education with lack of familiarity with fundamental ideas—and the origins of those ideas—that are wrought into the very fabric of our civilization. And to much in the educationist's plea for attacking present-day problems without prejudice of the past any thinking person must heartily subscribe. The difficulty is that in his enthusiasm for this contemporaneity of his he overlooks or belittles or even scorns what the great fields of liberal culture of the past have to offer him.

In my latest alma mater there is a secret society composed of faculty men and the presumably more promising of the students. The initiation as concocted on one occasion by two of the really scholarly faculty members consisted, among other things, in asking the candidates a series of embarrassing questions, such as: "In what century was Shakespeare born?" "Who wrote the *Moonlight Sonata?*"

"What is the meaning of the word *marsupial?*" and so on. The future educators of this prize group when propounded these questions looked both foolish and confused; they grew red in the face and shifted from one foot to the other like a line of school boys, but they remained dumb. (Any chance reader of the younger generation will misinterpret this word, but let him). Then they were asked a series of questions pertaining to items upon the sporting pages of current newspapers. And immediately a change was visible. Confusion and embarassment disappeared, assurance made itself felt in every gesture and tone of voice; answers came promptly and sure. These men were on their own ground.

Not long since a schoolmaster of the old school in one of our populous Eastern states—a man who loves books and music and pictures and travel and polite social intercourse and *ideas*, along with his running of a successful school system—said to me that there were not a half-dozen school executives in his state that he could term "cultured" men. Now I happen to know that this man was prejudiced and piqued by the fact that many of these executives had Ph.D. degrees, earned in technical fields with which he had slight acquaintance. They knew the principles of accounting, building, merchandising, personnel administration, "child accounting," publicity methods, survey methods—everything, he maintained, except how to look for the ultimate values and meanings of education. Granted that these future leaders in the profession had had a "course" or two in the "philosophy of education" or in "educational sociology," they had put their supreme effort upon a purely mechanical major subject. Only narrowness can deny it a meritorious service to reduce such procedures to an exact science; they are procedures that school people must know, and efficiency in the modern school system demands their practice. The tragedy stalks into the scene when candidates for degrees in teachers colleges, having concentrated upon and mastered these techniques, go out with the assumption that they are thereby qualified to guide the process of either

public or private education. The old schoolmaster from one point of view was doubtless right.

There are several reasons for such a situation. Perhaps most potent among them is the fact that public school education in America is under the domination of the business man. Its financial resources are in his hand, and it is a point to his credit that he has interfered to no greater extent. However, education has in many ways accepted his ideals as its own. Less than a generation ago all school children were periodically subjected to a lecture upon the material advantages of education. Probably the practice isn't yet entirely obsolete. This lecture always set forth, often with the aid of charts and tables, the advantages—specifically, the monetary advantages—of going to college. Figures were produced to show how the average graduate of an elementary school received, when he grew up, a salary of a certain size; the graduate of a high school got a better salary; but the college graduate received, by far, the most money, got the best positions, and could be sure, therefore, of the greatest happiness in life. Education was held to be in the most literal sense a profitable investment. It was easy to show, in fact, that the boy who stayed in school was making very handsome wages by so doing.

If anybody retains skepticism as to the efficacy of educational propaganda, let him observe the floods that have subsequently poured in upon the secondary schools and colleges. Unquestionably this propaganda has been a tremendous factor in the present situation. The American public is thoroughly and naively certain that education pays.

At this point let me return to the source of much of this rather disconcerting outcome—to us educationists. The complaint was previously made that the educationists of the teachers colleges are often poor teachers. The reasons are not far to seek. These teachers colleges have dedicated themselves to the establishment of a science of education, and the spirit of research, of original investigation permeates every nook and corner of such institutions—at least,

the larger ones—as a burning incense. It affects every young instructor in the place; older professors receive a call to the institution only after they have demonstrated their ability to make such investigations. In an atmosphere of this sort classroom work becomes something of a bore; it interferes with long periods of concentration, and often calls for the presentation of problems on a more or less elementary plane. Moreover, the result of such research is at present hopelessly quantitative. Out of it, let us hope, is to emerge a sane and balanced program of education, but probably half of it that gets published is neither sensible, on the one hand, nor stimulating, on the other. As for the majority of doctors' dissertations in the field, the less said the better. One hundred years from now they will be considered as stale and jejune as the productions of medieval scholasticism now are. (However, it should be added that the great majority of dissertations in other fields can quite as properly be consigned to the same limbo).

In the second place, professorial writing, especially if it take on the dignity and portliness of a book, is in these days a much more gratifying form of expression. An author is somebody, he puts his findings or ideas into permanent form, and the pursuit of writing may become, directly or indirectly, a lucrative "side-line." In any case, it is a quantitative measure of the instructor's output in the field of scholarship.

In the third place, the teacher thus puts himself in the way of becoming—would I could scotch the phrase!—an "educational authority." The emergence of techniques, formulas, and statistical method in education has here encouraged the same attitude toward the "authority" as that taken toward the "expert" in other fields. But while there is no escape in an increasingly complex civilization from his domination (and people must be taught to realize it), it should be pointed out that the science of education has progressed relatively so short a distance that the venturer after ideas in this mart must not forget the ancient adage of

caution to the purchaser. It is the way of the world to expect all its leaders to be interpreters, but we have had in recent times enough platitudes and inane preachments handed to us from famous industrialists by way of the indefatigable reporter to know that though the great man may marshal his employees or his formulas by the ten thousand, he may stumble lamentably in the role of the seer. Nevertheless, the state of being an educational authority has also its quantitative satisfactions and emoluments.

For the most gullible of all people, it would appear, in the presence of an educational authority, are the members of the profession who are not authorities. Otherwise, it is difficult to account for the regularity with which educational panaceas sweep the country. According to the point of view of these credulous people, education is ever on the verge of being solved by means of a testing program, a "project method," or a "socialized recitation," and no teacher amounts to anything in the profession who does not forthwith espouse the latest solution and joyously prepare for the educational millenium. There are at least two good reasons why this condition prevails. The first is that the average student in a teachers college is a comparatively young woman, lacking in the intelligence, the maturity, the experience, and the reflective power that beget independence. The second reason is that she has thoroughly and uncritically absorbed the current notion that all forms of higher education consist in class-attendance, note-taking, reference-reading, test-passing, and point-making. A given number of items are handed out to be learned; mastery of them to the satisfaction of an instructor yields points; points in sufficient number constitute education.

If one goes back to the reports of college presidents of sixty years ago, one will find references to the inauguration of the elective system and the flattering results as to college attendance. (The colleges had previously suffered a slump in this respect). But its establishment involved a reorganization of classes. At Columbia University, for example, up

to this time classes had been scheduled from nine to twelve in the morning, and students followed a curriculum almost as rigid as that of an elementary school today. They attended three hours a day for five days, a total of fifteen hours a week. Naturally with the shift to a schedule of irregular class hours necessitated by the new plan, a basis was sought for equivalence with the old regime, and hence total "hours" or "points" came to be closely reckoned. This tendency was greatly stimulated and the secondary schools were inoculated with the same virus by the establishment of what is known as the college entrance unit by the College Entrance Examination Board in 1900. This unit was defined as attendance at a given class for five times a week, and for a specified number of weeks. It took little account of what happened to the student in the class except that he "pass." Differences in teachers, in methods, in material, in marking systems were all subordinated to the quantitative time measure. The result is that our young people of today are "credit-minded" with respect to education. For them education becomes to a surprising degree the accumulation or hoarding of points or credits. And of course, as in all acquisitive undertakings of a quantitative nature, the more cheaply (the word here applying the the expenditure of effort necessary) these points can be picked up, the more they are valued as a good bargain. A friend of mine who recently finished giving a course in "College Aims" in one of our urban universities told me that his greatest struggle came with trying to convince his students that they were not doing too much work for one point of credit! Contrast such an attitude with that of the defender of liberal education a short generation ago. His insistence upon what education did to a man's *soul* was emotionally warmed with an almost religious fervor. And the religionists, by the way, have never made the mistake of assuming that mere attendance at church services or the memorizing of catechisms will "save" one's soul; the process of "conversion," "a change of heart," or a "confirmation" has to intervene at some point.

We shall have differences of interpretation among those engaged in the various phases of education as long as we have a complex civilization and vigorous personalities to express them. Thank heaven, we shall. However, at the present juncture there is a resulting confusion which a survey of educational literature seems to indicate has made cleavages both wide and deep.

Differences between those who view education as an art and those who view it as a science have not all been reconciled. For example, William B. Munro still insists that "teaching is an art, and true art can never be enslaved to formal rules . . . There is no best method of instruction," he continues, "whether in the home, the school, or the college . . . . It is the men, not methods or measures, that determine whether a college shall be first-rate or second class."

But the other phase of it is emphasized when David Snedden declares that:

"He [the professor pedagogy] saw that the time must soon come when the immense mass of faiths, beliefs, traditions, superstitions, customs, and habits which now serve as the foundations and frame-work of educational practice would all have to undergo examination in the light of scientific methods."

Again, there is the conflict between the humanitarian and the humanist. The former is the advocate of and the believer in the beneficient results to be derived from "mass education"; that is, education as a free commodity to be distributed under the supervision of the state to every individual in it. The president of a western teachers college recently delivered himself of the following stricture:

"No liberal arts colleges seem to be interested in the future of public education for the masses—I fail to find any way in which they look beyond the individual to the masses that their graduates may touch when they leave college. I am forced to conclude that the liberal arts col-

leges do not accept any responsibility for public education."

But Irving Babbitt (of course) repudiates such an attitude. "Humanitarians," he maintains, "are at present shaping our educational policy from the elementary grades to the university .... It will be found to be no small matter whether our higher education is to have enshrined at its center the idea of leisure in Aristotle's sense, or the idea of service given to the world by President Eliot and the humanitarians."

Again, there is the utilitarian point of view opposed to that of a growing body of educational sociologists.

But happily there are beginning to appear in these days certain syntheses of these diverse and often-times antagonistic positions—syntheses that renew confidence in the vitality of American life and its capacity for sensing its own lacks. Let me quote from a famous figure in the field of educational research. The following excerpt is taken from the editorial columns of the Ohio State University *Educational Research Bulletin*, of May 11, 1927. Professor B. R. Buckingham was at that time editor of the little publication, and if the material quoted is not directly from his pen, it must at least have appeared with his complete sanction:

> To divorce philosophy and research is impossible—as impossible as it is to divorce experimental from introspective psychology. And for the same reason. Without the descriptive and speculative processes the experimental or scientific activities lack interpretation. Without the scientific methods, philosophical inquiry lacks concreteness. Without science, philosophy is uncertain, conflicting, and unconvincing. Without philosophy, science is blind, unmeaning and petty. We can imagine no more helpful educational organization than that which should exalt both philosophy and research. For example, a school of education in a great university should, in our judgment, ele-

> vate its research activities through the directive and refining influence of the best philosophical thought. This does not appear to be thought of. The craze today is for measurement—for counting and comparing in quantitative terms. It would be as silly as it would be untrue for us to deprecate this type of thinking. But there come times when the merely quantitative seems incomplete and unsatisfactory. We observe, moreover, that those research workers are most influential who appeal most frequently to higher sanctions than central tendencies or curves of error.

There is no educationist in the full possession of his senses who would deny the place of value or values in education. The difficulties that confront him are: first, the definition of the values themselves; second, the constant recognition of them along with the means of their attainment; and the third, the ability to adjust his scale of values to the exigencies of a changing civilization. There is no hope within our vision of finding a single scale that will suffice for all groups of people; cleavages are destined to remain with us. But perhaps no cleavage in the educational world strikes more deeply than that between the objectively-minded and the subjectively-minded, between those whose emphasis is placed upon doing, or objective accomplishment, and those who would stress being and the inner life. Now science, and especially applied science, and business and humanitarianism are all objective and quantitative. It is not surprising if in the United States education has erred on the side of doing as opposed to being. Yet when humanism sets out to demolish humanitarianism and all its works its error is quite as silly. At the present time American education stands in dire need of the element represented by humanism, but it needs such an element mainly as a complement, not simply as a substitute. A wholesome injection of such a spirit would replace certain conceptions, to be sure, but, more important, it would ameliorate the quantitative harshness of many other of its present points of view.

In conclusion, a word should be said about administrative measures, the practical ways of bringing about our *desiderata.* One can not avoid noting in reading, for instance, such a book as the recent symposium called "The Students Speak Out," the great preponderance of vague longing for ends without reference to means; and such expressions, valuable as they are, tend to irk the practical administrator who knows the difficulties in the way to fulfillment of the ideal education.

There is, it seems to me, a center to which we must give renewed and continued scrutiny; namely, the professional school. In every one of these schools there needs to be constantly reborn the realization that techniques are but applications of broader principles. Agriculture, engineering, medicine, dentistry, followed far enough, lead surely back to the realm of pure science. Law, journalism, theology, even business administration, are founded upon those areas of human learning and experience that involve ramifications to the uttermost latitudes. Statements like these are platitudes, of course, but teaching in these fields bears lamentably little relationship to a consciousness of them. I was greatly impressed the other day by the remark of one of my colleagues who teaches electrical engineering. It was his practice, he declared, whenever he discovered the boy who could really think—and he used that word in its broad meaning—to throw out to him constantly those baits and lures that would attract him into an exploration of the deeper backgrounds of his current study. He could see no reason why from a course in electrical engineering a student should not emerge a cultured and truly educated man. Would there were a host of him!

But among the professional schools must also be placed the college of education, or teachers college, and here lie the greatest possibilities of all. First, there is due every teacher in training and every community she is to serve, a contact with people possessed of wisdom as well as factual knowledge, people who know life as well as techniques, who

have *both* humanitarian and humanistic zeal. Next, the most vital point of attack upon the whole "education-for-credit" conception lies in the teacher-training institutions. Once let our teachers from the elementary grades up, gain the realization that education for those who are capable is always a qualitative thing which cannot be reduced to a quantitative image any more than can a fear or a joy, and we shall have gained headway. Again, why not frankly face the fact that the great majority of women students in teachers colleges under present conditions in the United States expect to marry and are interested in the legitimate aggrandizement of their social status? This means not only continuation and expansion of the tendency toward liberal education in the curricula of our teacher-training institutions, but the inauguration of definite training in both social and parental duties such as is available in the best of our women's colleges. Pupils and communities coming in contact with the recipients of this kind of training would certainly gain something of value not contained in the present "professional" training, and incidentally these young neophytes in the cloisters of education would have a lot happier and more wholesome outlook upon the world.

Finally, administration must be tempered with humanistic interpretations, and researches must be tempered with humanistic backgrounds. It is useless for us to think of gathering *all* the facts before we proceed to interpretations and syntheses. When our modern astronomical writers soberly inform us that they see no reason why the life of man on this planet should not extend for a million million years into the future and present to us the conception of a cosmology with a radius of some 2,000 million light-years, it would seem well for us to turn to the seer as well as the scientist, but most of all to that seer whose vision is born of the travail of true scholarship. In education, as in perhaps no other profession, we need, in the famous phrase of Matthew Arnold, "to see life steadily and see it whole."

A Responsibility of the Scientist Toward Society*

By JOHN D. CLARK

THE ancients set up the skeleton in the midst of their banquets to remind the banqueters of their mortality—the festive occasions were not allowed to become too festive, lest someone thoroughly enjoy himself. We moderns have made doubtful progress, for, although it is true that we have abandoned the skeleton, and have substituted the retiring president, there is no gainsaying that, whatever gloom the skeleton may have cast on the gathering, he remained silent, yet today we expect the retiring president to speak.

These few opening words suggest my theme—that in many ways we have not progressed to the fullest extent of our capacities, that the scientist has yet a great duty to perform, and that by the practice of the scientific method, by teaching, by precept, and by example, there is something which the scientist can, and should, do for society to enable it to throw off the fetters of antiquity and to come to a full realization of its possibilities for completer and richer use of the three score years of mundane existence of the average man.

There are those who think of the older scientists as men of great curiosity, men who wanted to know why, and men who, if they could continue to seek the truth, found full compensation for their labors in the truth they discovered. Indeed, if their circumstances in life permitted their researches, the research itself was an all-satisfying end. We know only too well how the world regarded these truth seekers. They were only eccentric if their discoveries meant nothing to their fellow men of other walks of life, though they became menaces, fit for, and deserving of, banishmen or death if their findings seemed capable of affecting any customs or beliefs of the times. In short, the oldest of the scientists were tolerated with kindness, only if they had no influence upon society. No wonder that the scientists

*Address of the retiring president of the Southwestern Division of the American Association for the Advancement of Science. Denver, Colorado, April 28, 1932.

of the Archean period of thinking, (not Archean period of the geologist), influenced his contemporary society to such a slight extent. In truth, if he affected one or two human individuals so that they continued his researches, he made his major influence upon his fellows.

But lo and behold! Someone sees a use for some patiently sought for fact, or clearly thought out principle—it might lead to means of fleecing some unsuspecting ruler; it may be that a suggestion arises to the effect that there is an easier and more effective way of overcoming an enemy, avoiding some drudgery or catering to some one of the more primitive desires. If the surmise proves true, then society is affected. Science is then (at first often unwittingly) playing a new role, and so on it goes; life becomes easier, thanks to the application of science; men's hands become more skillful; men's arms are lengthened and strengthened; their legs move faster, become less fatigued and support greater burdens; their eyes see the very minute as well as travel out into the universe; they hear what they have never heard before and speak across space that never carried human voice. Our days on earth become longer, and less harrassed by pain. Our fears subside (or at least partially subside). Mechanical slaves remove our drudgery. We have more moments of leisure. The world is a better place in which to live, because the technologist, the physician and sanitarian, and the manufacturer are applying the findings of the researcher. Van Loon in his *Man, the Miracle Maker,* has covered some hundred pages in making clear that which I have so briefly stated. He is very convincing, and after reading him, we feel well satisfied with our accomplishment. But, there is another, and hideous side to the picture. Science has been applied in the intensification of all the worst of which human beings are capable. Our ancestors were intolerant of opinions of others—and so are we. Rationality is timid and slips from us so shyly, while emotionalism boldly walks in and takes possession of us. With no effort

at all, we return to primitive modes of thought, and stubbornly refuse to face facts. Our all too human minds control the tools of a super-Frankenstein. As Slosson says, "The world, like a child at Christmas, is willing to receive the material gifts of science but refuses its moral lessons. The world will accept from the hands of science railroads, radios, and soft raiment and foreign foods, airplanes and submarines, but turns a deaf ear when science would talk of peace, efficiency, economy, foresight, and the frank facing of facts."

Within the memory of every living adult is that colossal example of 1914, which cost the world twenty million lives, which destroyed the constructive work of a generation, and whose dire effects still enmesh us. Right and wrong were as clearly, or as dimly understood then as they are today, yet no one wanted to face the facts of justice or injustice. One can read the writings of any publicist or statesman of any country involved in the World War. All predicted its coming, and as we read their memoirs we gasp that so few really tried to prevent its arrival. It seems, on the contrary, that most of them looked forward to its coming with welcome. The battlefield stage of the catastrophe ended with the Armistice, but the states of mind which we so much deplore were present at the conference table, and emerged in print as the treaty of Versailles.

As Grand Duke Alexander of Russia states in his recent work: "The Peace Conference was to open in a few days. The corridors of the historic Palace of the Kings of France were burning with rumors and intrigues. The Rumanians, the Czechoslovaks, the Portuguese, and the other disputable participants of the victory were tearing apart the dead bodies of three fallen empires. The plenipotentiaries of the twenty-seven nations gathered in Versailles, swore by the name of President Wilson, but in reality the whole show was directed by the so-called Big Four—the French, the British, the Italians, and the Japanese. Look-

ing at the familiar faces of the delegates, I understood that the cannon of the Armistice signified the revival of the forces of blind selfishness: the conditions of the Eternal Peace were to be worked out by the very same statesmen who had caused the war! The joke seemed too gruesome even for the old school of diplomats, but there, leaning against a column, shaking hands and coining witticisms, stood Arthur Balfour, who had dedicated many years of his life to the business of fostering quarrels between Berlin and London. 'Here I am,' said his whimsical smile, 'ready to plant my feet under the table of the Peace Conference in company with the bunch of old foxes who did their damndest to promote the slaughter.' All the great editorial writers to the contrary, the four years of war failed to change the cast of the characters of our little drama. Kaiser Wilhelm may be imprisoned in Doorn but his spirit is marching on."

The calamity due to superstition in high places is clearly pictured in the scenes of Rasputin at the Russian court, a peasant "preventing" the recurrence of the bleeding of hemophilia in the heir apparent. No scientist should fail to read "Rasputin, the Holy Devil."

In 1918 and 1919 Bolshevism could have been laid at rest with the greatest of ease but in the face of the selfish ends to be promoted, facts could not be faced by the statesmen of the world.

One could continue to great length, giving example after example of human conduct in whose planning facts are ignored and in their place are substituted selfish ambition, hatred or greed, and even when every motive is, in these cases, as pure as the driven snow, we can point to examples of partial or complete failure because the scientific method has been ignored.

In 1920 this nation had a gasoline shortage. The scientists went to work. Old methods of geological exploration were improved, geo-physical methods of prospecting were

devised, new ways of cracking came forward, anti-knock agents were discovered, motors were improved, we found out the way to liquefy coal, and even invented new means of hydrogenation of old waste materials. The number of cars in operation increased several fold as these researches were in progress. Now, for more than two years we have had great overproduction of gasoline. The problem enters the fields of economics and government. Antiquated anti-trust laws meet the producers. Governor "Alfalfa Bill" calls out the militia. At the time when the scientist took up the problem of the gasoline shortage, this nation grappled with the problem of the evil of alcoholic drink. As far as we can learn, no scientist was called in, and certainly the methods of science were not brought to play upon the problem. The gasoline shortage is hardly a memory but the prohibition problem has front page in the press and special columns in the magazines, and often monopolizes conversation at dinner, in smoking room or at social gathering. When the Literary Digest poll is completed, we shall have a chance to see how far from unanimous is the belief that our present laws have solved our problem. As a scientist, I wonder what might have been the result had congress chosen to have the president appoint a commission of scientists, to whom their task, "Reduction, and, if possible, elimination of the evil of drink," was announced with the same simplicity that President McKinley used when he asked Rowan to carry the message to Garcia, and if this commission had been clothed with authority to perform the task as its scientific judgment indicated was necessary.

In spite of their exaggeration, I think that the words of Bertrand Russell give our best picture of science at the type of work which seems to have no social, economic, or religious consequences, and at the same time satirizes only mildly what might happen if it did.

"We have had in recent years a brilliant example of the scientific temper of mind in the theory of relativity and its reception by the world. Einstein, a German-Swiss-Jew

pacifist, was appointed to a research professorship by the German government in the early days of the war; his predictions were verified by an English expedition which observed the eclipse of 1919, very soon after the armistice. His theory upset the whole theoretical framework of traditional physics; it was almost as damaging to orthodox physics as Darwin was to Genesis. Yet physicists everywhere have shown complete readiness to accept his theory as soon as it appeared that the evidence was in its favor. None of them, least of all Einstein himself, would claim that he has said the last word. He has not built a monument of infallible dogma to stand for all time. There are some difficulties he cannot solve; his doctrines will have to be modified in their turn as they have modified Newton's. This critical, undogmatic receptiveness is the true attitude of science.

"What would have happened if Einstein had advanced something equally new in the sphere of religion or politics? English people would have found elements of Prussionism in his theory; anti-Semites would have regarded it as a Zionist plot; nationalists in all countries would have found it tainted with lily-livered pacifism, and proclaimed it a mere dodge for escaping military service. All the old-fashioned professors would have approached Scotland Yard to get the importation of his writing prohibited. Teachers favorable to him would have been dismissed. He, meanwhile, would have captured the government of some backward country, where it would have become illegal to teach anything except his doctrine, which would have grown into a mysterious dogma not understood by anybody. Ultimately the truth or falsehood of his doctrine would be decided on the battlefield, without the collection of any fresh evidence for or against it."

The Southwestern Division of the American Association for the Advancement of Science has been very potent among the scientists of our territory in keeping us from becoming experts or specialists in the sense of the definition

that "an expert is one who continues to know more and more about less and less." Papers on every branch of science are read at our meetings, not excluding those on social science or education. Our symposia have been held on wide-awake, up-to-date topics. To them we have admitted the general public and the public has understood the discussion. Indeed, that a paper may be announced on our program, requires that a non-technical abstract be furnished the secretary of the appropriate section, so that the Press may accurately interpret it to the man in the street. Within our membership the biologist has kept informed on the work of the archaeologist, the physicist with the astronomer, the chemist with the physician, and so on, as full opportunity has been granted to each to know of the endeavors of the others. We are a relatively small group. Contacts are easily made. I will venture to say that around this table any individual has conversed this evening during dinner, with not less than three scientists whose field of work is not his own. It has become commonplace to hear one of our members say, "I get more from the meetings of the Division than I do from the National meetings."

I have a vision that the good work of the Division may be widely extended, and that as time goes on we may make a deeper and deeper impression upon society, for as the title of my address postulates, we have a social responsibility. If society often ignores the facts may we not influence it to regard them? I certain hope that our legislatures and others in authority accept the facts brought out in our symposium on "Readjustments of Educational and Scientific Endeavor in the Light of Changed Economic Conditions." If society makes its hypotheses and explanations with too little consideration of their adequacy, I hope that we may be influential in causing these theories to be revamped. If society acts upon emotions, I hope, that as time goes by, we may bring our influence to bear, at least, in

making these emotions less blind. But how may we do these things?

The optimist tells us that everything can be accomplished through education, yet, as Slosson says, "It may be thought that our proficiency in science and engineering will prevent the recrudescence of superstition; but history does not give us hope of immunity. Magic flourished in Mesopotamia at the time the Babylonians were raising skyscrapers that alarmed high heaven. The Romans consulted the entrails of animals when they laid the aqueducts and sewers of Rome. Today there are more believers in magic, necromancy, astrology, divination, and other forms of witchcraft than there ever were. They may not form so large a proportion of the population as they did in ancient Assyria and Rome or medieval Europe, but they are more numerous because the population is much greater.

"Science rules the laboratory and the machine shop. It does not hold sway over the minds of the people. The extension of science teaching in the public school does not seem to have increased the liking and respect for science as much as was anticipated before it was introduced. This is the age of science, but not a scientific age."

The consorting of a recent lady of the White House with a soothsayer gives illumination to Slossons' words.

But we should not be discouraged. Science is young but we have made progress. Nobody paid much attention to Franklin's kite, but today if someone made a similar discovery of as much possibility, the next morning he would be visited by representatives of General Motors, General Electric, and DuPont seeking to patent the principle. Scientists are at least appreciated for the earning power of their works.

Perhaps we scientists have not done all that we could do. I think that we have not. It is worth thinking about. I believe that we could well afford to take a suggestion from industry. If we study industry we note that three types of

men are drawing large salaries, which means that they are considered valuable as means to an end, that of producing dividends. They are the researcher, the operator, who weaves into substance the results of the researcher, and the salesman who presents to the public the work of both and makes the public understand and desirious to possess.

We scientists have our researchers—men who are at their best in conducting or directing research, but we handicap them frightfully. In our universities, so often we compel them to teach under-graduate classes the work of which bores them. We say that the researcher inspires his classes. Some of them do and some of them most decidedly do not. The former is a gifted soul equally good in the research or operating department. The latter is as out of place in the classroom as he is in the industrial plant.

Concerning research and its effect on teaching, Charles H. Judd says: "Ours is an age of extreme specialization. The college teacher of today is immersed in the problems of his narrow specialty more than were the teachers of earlier generations. His attention is devoted to technical methods of investigation peculiar to the subject which he teaches. This concentration on a particular subject unfits a teacher in some measure—often in a very large measure—for that sympathetic consideration of the mental characteristics of immature students which is necessary if one is to organize instruction in conformity with the psychology of the learning process." Too often a position in an educational institution is to be filled, the candidate with the longest list of publications to his credit is awarded the position, tomorrow to find himself facing a full teaching schedule, and far, far too often, an oversupply of undergraduates who need, not a researcher, but a *teacher*.

Teaching skill which was adequate for instructing the 2.84 precentage of our population between the ages of nineteen and twenty-two preparing to enter the "learned professions" a quarter of a century ago, cannot be assumed

as adequate for the 11.77 percent, now enrolled in our colleges, training for everything imaginable.

We are generous with our handicaps. Wolfgang Ostwald says, "When the Americans discover that a man is superbly fitted for some type of research work, they reward him with some sort of position in which he can no longer pursue it." I agree with Zinnser that "no one can properly direct a department who is not professionally competent in the subject with which he deals," but I deplore the lack of competent assistant directors and assistant deans, the bents of these assistants being primarily administrative and not research.

As industry separates the duties of its researchers, and its operators, so should our educational institutions endeavor to keep the skillful teacher at his teaching, unhampered by other duties. The real teacher is rare. Many go through the motions of teaching but few are 100 per cent inspirational, bring out the best in their students and imbue them with the desire to continue their progress to the top of the ladder. He have argued that the teacher should have the point of view which he gets only from research. I grant much of this, but I also recognize that in his doctor's dissertion, he has secured that point of view, and that in his sabbatical leaves he can continue to keep it, but I also insist that he performs his best work for the future of science when his main efforts are consumed in teaching, inspiring, and guiding the immature minds, put for a time in his custody. I know a man who produces researchers in the freshman year. If freshmen have the finest teacher in the department, the world has the best chance of receiving brilliant scientists in the future.

In his inaugural address at the University of California, President Robert Gordon Sproul, some months ago said, "Under present conditions we have the strange anomaly of teachers being judged not by their ability to teach but by their research output, and investigators being forced

to devote valuable time to teaching that might be given to advancing the frontiers of knowledge . . . The investigator should be allowed to investigate and the teachers should be allowed to teach," and, Dr. Sproul adds, "The rewards for good service in either case should be the same."

An now for that greater stress—our responsibility to society, and some suggestion as to how I think we can do much more than we have ever done to have a much larger portion of our population mentally equipped for more rational thinking and acting—equipped to use the scientific method.

If we pause and consider who creates public opinion and who sets up and administers our laws, it is at once apparent that few of these have been much exposed to the scientific method of thinking, as a part of their preparation for their responsibilities. Some rare few secure this point of view as a result of the working out of their own destinies, but the majority do not. Most of our legislators rise to their positions of responsibility through politics, and politics and science are like east and west, and "never the twain shall meet." If our lawmakers and executives are ever to become more scientific, we must affect them before they enter political life. I have often wondered how different might our affairs of today be if the engineer in the White House could speak to a fair sprinkling of senators and congressmen who had also been engineers, or other scientists. However, he speaks mostly to lawyers, and few lawyers have had much training in science as a part of their training for their professions, and if they have had, it is far from certain that the training has been productive of the scientific mind.. There is a wide variation between the natural inclination of mentalities, and almost as wide a variation in the presentations of science to those minds.

Crusaders are needed to teach the public to tolerate social experimentation made in the spirit of scientific research, that social science may be brought more nearly to the level of technological advance.

Shortly after the close of the war there was an attempt made in this country to acquaint the public with science, as was never attempted before. A central office at Washington supplied scientific news items to the press. The press used them. Indeed, the press has become eager to secure news from scientific sources, as witness the space given to our meeting in the press of this city. More popular books on science have appeared since the war than were written in all the ages before, and they have been appreciated by the public, I think, more than by the men of science. I think that the average scientist has not realized the interests that they have aroused, and the invisible assistance they have been to him. Various societies have conducted prize essay contests, conspicuous among which was that financed by Francis Garvan, and managed by the Chemical Foundation. Some of the thoughts I am presenting in this paper have resulted from my service as Chairman for New Mexico of the American Chemical Society Prize Contests from the time they were established to the time they were discontinued. These and the other means of presenting science to the public have been productive of much good, but they have failed to bring about that which I have been stressing.

Some five years after the armistice, some of the eastern universities considered the establishment of "survey courses" in science. Wilder D. Bancroft, of Cornell, published his argument for, and a syllabus of, a course called "Pandemic Chemistry," in the April, 1926 number of the *Journal of Chemical Education.* In his introduction he says, "The universities have two functions in the teaching of sciences. They should teach a science as a professional study and as a cultural study. In the case of chemistry, the universities teach chemistry fairly well as a professional subject for chemists, the medical men, the biologists, the engineers, etc. So far as I know there is no university which teaches chemistry as a cultural study—a part of a general education. . . . Since chemistry is the fundamental

science, one which we are always encountering in some form and in some place, it is particularly desirable that everybody should have some knowledge of chemistry; and yet the teaching chemist does nothing to make this possible. The chemists complain, and very properly, that business men and the bankers are deplorably ignorant of chemistry; but the chemist provides no way for the prospective business man to get even the most rudimentary knowledge of chemistry as a whole. What we need as a cultural course in chemistry is a course which will cover all the ground in chemistry given in the universities without going into too much detail."

Last month, in a letter to me, an international figure in the chemical world wrote, "Having taught for many years, I know that fifty per cent of those I taught would have been much better citizens and much better friends of chemistry if they could have had a general educational course covering the value of chemistry in life, rather than having been required to study some real chemistry which that particular fifty per cent could never absorb."

I have stressed the need of inculcating some of the thinking of the scientist into the coming leaders of tomorrow. To do this, we need a vehicle and that vehicle can easily be the survey course in any field of science. There is real need for experimentation with such courses, and I mean open minded experimentation, which will make serious research into the possibility for good afforded by such work. The man whose love is research in his chosen profession will probably not be qualified to take up this task, for only the enthusiastic teacher, only one who so thoroughly knows his field that his whole attention may be directed to skillful presentation and weighing of results will ever succeed. He will have to work on material which has never learned the love of science, and which never hopes to pursue it, but he has a chance to be of profound influence on those who will, all their lives, be consumers of science, and upon those who will make judgments affecting the wel-

fare of science. I mean those who attain leadership in business, law, and other professional life or even in social position and who become members of boards of regents, legislators, or governmental executives.

It is astonishing to look at the programs of study and the requirements for graduation of those who are training to be the teachers of the children of this country, and to note how innocent these can be of any science. The same is true of that goodly percentage of students who major in music or in art. Elementary, but professional courses in the sciences, are utterly distasteful to these students and they avoid them. It is true that some science is often a part of graduation requirement, but because of the reputation for difficulty that these professional courses have on the campus, many a timid, non-interested student is defeated in them, as far as securing real benefit is concerned, the day he registers. I submit that a little of the spirit of science would greatly benefit our musicians and our artists. Those who have ever heard Tight lecture on geology, Douglass lecture on the tree rings, Lester explain the significance of the electron, or Hewett cover the archaeology of the Southwest, or (to leave our section and take a national editor) have heard of H. E. Howe, the author of the popular volumes of "Chemistry in Industry" and of "Chemistry in the World's Work," know the kind of men who should take up this work. Science suffered a greater loss than it yet realizes when Edwin E. Slosson passed to his reward. As a part of our responsibility to society, for many more reasons than I have attempted to tell, we need to develop for that great group of lower division college students, some able salesmen of science.

I strongly commend the address on "The Psychology of the Learning Processes at the Higher Levels," made by Charles H. Judd, of the University of Chicago, to the last annual meeting of the American Association of University Professors, and which is published as the leading article in the February Bulletin of the Association, to anyone who finds my paper of interest.

Whither America?

A Returning Exile's Impressions

By J. B. MONTGOMERY-MCGOVERN

SPEAKING of Voltaire, V. I. Woolf says: "In his time, (as perhaps in all times) it was dangerous to tell the truth, for men live by lies."

Is it dangerous in America in the year of grace, 1932? Is it dangerous even to say: "I don't know, I'm not fool enough to be dogmatic"?

Three years ago, I should have denied that this was possible. I had been away from America for many years. No, I had not forgotten the America of the 1900-1910 era. Unfortunately, I am old enough to remember it. But a "vigorous and growing" country must expand—otherwise than merely territorially—in a quarter of a century.

I thought: If, by casual references to evolution—in the biological sense—or to certain modern hypotheses to the effect that depravity may possibly be due to causes other than the machinations of a personal devil, I shock old ladies from provincial small towns, in this "older and more conservative country," or those members of the clergy whose thinking runs in molds created by "spiritual fathers" of long dead generations, in a land where church and state are one—well, at any rate, in a "young and intellectually eager country" (how often I had heard America called that by my compatriots more recently "come over"), I shall be less *"cribb'd, cabin'd, and confin'd."*

The American of today, I thought, is "willing to taste any drink once"; even to experiment with strange ones. "America," I had recently heard an American, far more familiar with present-day America than I, say, "is not a land of old ladies."

Good! I thought. If Americans of today, broadly speaking, lack the suavity of manner, the grace, the dignity,

of the better type of old ladies, at least they will not throw up their hand in horror at attitudes of mind, points of view which were not the mode in the days of good Queen Victoria and of dear General Grant, or even those of the first days of the present century.

True, just before I left the older country, a "Don" of one of the older universities of this older country laughingly had said: "So this trip is going to take you to the country where monkeyvilles flourish. I wonder what seeds of heresy you will sow there."

I was indignant. "I am not going to a tiny backwoods village in what you call the 'Bible Belt,' " I retorted. "I am going to the large cities of the Atlantic Coast. People there really don't lasso buffaloes in the streets, or—"

"But you told me, yourself," he began, "when you were at school in—" he mentioned a certain famous New England town.

"But that is longer ago than I like to remember. America prides herself upon being a land of progress, you know," I reminded him. "Times—"

" 'Times is changed,' says the dog's meat man,
'Lights is riz,' says the dog's meat man,"

he hummed friviously to a tune just then popular. ("Dons" do not always talk in Latin tags).

Still I came back to America expecting to find other things than prices "riz." America was not a land, I had been assured, where people lived in the day before yesterday.

I have been back in America a little over three years. A part of this time I have spent in New England, a part in the Middle Atlantic States, a part in the South, a part in the Middle West; just now I am in the Rocky Mountain region. With the exception of the Pacific Coast, I have been, since my return, in practically all parts of this geographically vast country. Some time was spent in America's two largest, and probably most cosmopolitan, cities, New York and Chicago.

Circumstances have thrown me, to a great extent, with university men and women. What I have learned of the American viewpoint of the present day—I am speaking collectively, not of that of exceptional individuals—has been learned not from the newly-landed immigrant, or from that convenient friend, "the man in the street."

Nor am I considering the point of view of the man or woman recently "come East" from Cross Roads, Mississippi; Main Street, Minnesota; or Red Dog, Arizona.

What I have gathered has been from contact with people of education whose cultural background, if not birth, has been "Eastern"—a point regarding which it seems, with the majority, the proper thing to be proud. Many of these people are engaged in teaching, in passing on intact their particular brand of culture to the younger generation of Americans, in instilling "loyalty to tradition," with emphasis on "tradition." (Are the psycho-analysts right: That because America is a young country, she gains "compensation" by stressing tradition?)

I am not talking about teachers in the public schools, in the American use of this term. Of the cut-and-driedness of the machinery of the present day public school system I had heard something. (How true or how false this heresay I have as yet had no means of ascertaining, directly). But also I had heard something—much, in fact—of the high standards of the private schools of America, those of the better sort; of the attention given in these schools to the individual; of the training adapted to the student's needs, of the cultivation of his initiative—or of hers.

It came as something of a shock, therefore, to hear the principal of one of the most "select" of these schools within the environs of New York City—a woman holding not one degree, but three, from well known Eastern colleges—say to a lecturer on anthropology: "Of course let the girls see that all study of anthropology leads up to Christianity."

"Why, it doesn't," the lecturer gasped.

"But it *must,*" the principal insisted. "This is a Christian school. Not sectarian; we are very broad-minded. But your own research—you say you have studied comparative religions—must have taught you that all heathen myths and customs—all other 'religions,' if you will, all codes of morals, if they are really morals, lead up to Christianity. That is obvious." The lady's lips closed determinedly. There was to be no foolishness about this matter.

A sort of Procrustean bed, apparently. If the result of research did not fit the tradition-that-must-be-maintained of the school, and that accepted by the best families, in this best of all countries, why so much the worse for research. So much the more must the lecturer beware of touching upon any point which conflicted with tradition. Yet money was collected in this school, both from teachers and pupils—those who did not subscribe were made to feel distinctly uncomfortable—for foreign missions; for the teaching of the heathen, among other things, the wickedness of holding to tribal tradition and taboo. The heathen are unfortunately unprogressive when left to their own sloth of mind and their childish folly, the folly of considering their religion, the religion of their fathers, superior to that of other people's fathers.

On another occasion this same lecturer was asked by another "educator," a lady of "old American" family—pre-Revolutionary, as she took pains to let it be known—there was no intermingling with ignorant immigrant stock in her line of long descent—"What record have anthropologists of the earliest man?"

The answer naturally had to do with the Java skull—our old friend *Pithecanthropus.* Also with the gentleman from Piltdown, and with eoliths, and other matters now scarcely more exciting than comments upon the weather, and rather less provocative of discussion than the relative merits of different sorts of fishbait.

The lecturer had anticipated, from the lady's—the "educator's"—somewhat agitated interest in the matter

that perhaps she had some theory to urge in regard to the presence of "dawn-man" in America. Perhaps she was resentful that mention of America had been omitted. The greater was the lecturer's surprise, therefore, to find that the "educator's" agitation had quite a different basis.

"It is impossible that you are telling the truth," she said, "for the Bible gives one distinctly to understand that the Garden of Eden was"—The "educator" held forth upon the lecturer's impiety for not having given Mesopotamia, or, at least, some part of Asia Minor, as the site of the finding of the fragments of *Pithecanthropus Erectus.*

Poor *Pithecanthropus!* It really was reprehensible of him to have been careless enough to leave scraps of himself in lands other than those mentioned in Sacred History.

The "educator," whose agitation came as a slight surprise—No, gentle reader, she was not from the "dark belt"; she had a contempt for the South, because of its general ignorance and lack of enlightenment; she was from New England. "All Southerners," she said, "are backward. They are poor intellectually. They have to come to us for education—those of them that want any."

There flashed across the lecturer's mind the recollection of having seen at the South, while the before-the-Civil-War Rich were still, as the aftermath of that war, very poor—too poor to send their daughters to the only schools that were, from the Southern point of view, then possible for girls—mothers acting as teachers. These mother-teachers—some, at any rate, who came promptly to mind—would teach their small children gathered about their knees—not, "Line upon Line," but in simple language, gleanings from *The Descent of Man* and from *Origin of Species* before the children, themselves, were able to read "long words." (By the way, has a *Children's Darwin* ever been written? There seems nothing that fascinates children more than the story of evolution simply told.)

Yet Southerners, and apparently all not blessed with the "background and tradition of Puritan culture," are,

from the point of view of the average New Englander, even the educated, poor in other than material possessions. One illusion lost, namely: that there is little or no provincialism left in America. "The radio, the airplane, and most of all, the automobile have done away with sectional prejudice," I had frequently been told.

What type of *genus homo Americanus* had Artemus Ward, one wonders, in mind when he said: "The trouble with most people ain't that they don't know, but that they know so much that ain't so."

This smug complacency, this dogmatic laying-down of the law, this knowing what either "ain't so," or what at least, is highly problematical, is not the exclusively perogative of the present-day American, certainly. It is much in evidence in the "mother country," Anglo-Saxonly speaking, and in all the pink-colored portions of the world's map. (Is it the contribution which the mentally middle-class Anglo-Saxon has made to the world-psyche?) But America, one is told constantly—and truly, judging from the babel of non-English togues and the sight of "foreign" faces in the larger cities—is no longer purely Anglo-Saxon. It is the "melting-pot of the races."

So was Italy, northern Italy, certainly, in the days of the Renaissance. The fusion of breeds into breed, quick with the energy of many, the clash of race upon race, that of the various branches of the Caucasian at least, tends to produce genius, one is told, as the clash of steel upon flint produces flame.

Is it so in America? Has this fusion of breed produced a people eager in the quest of things of the mind and the spirit, as in Renaissance Italy? Nordic and Celt, Slav, Latin, and Semite, seeking in the New World "broader scope," "wider outlet"—these phrases have become platitudes. Have they found this—along other than money-getting lines? Have they in turn, given a wider horizon, or an eagerness to glimpse this, to the "old American stock"?

Nordic, Alpine, and Latin, and, certainly as far as the cities of the Adriatic were concerned, Oriental, as well, was the Italy of the thirteenth century, in which was born a civilization, short-lived in its flowering, measured by centuries, but more brilliant probably than any the world has known since the time of the Greek city-states; which earlier civilization, too, owed much to fusion of bloods, if the results of recent research are to be trusted.

But in America what—apart from bad manners—has this fusion of blood produced? (And incidentally, why the bad manners? Compare the manners of the Italian peasant, or the Portuguese on his native soil, or the Irishman, with those of the same man or woman transplanted to the land of "wider opportunity." Is some influence at work, in the air, or in the soil—that transforms courtesy and native peasant dignity to insolence and show-off braggadocio?)

Renaissance Italy, true enough, where also race was super-imposed upon race, had its "spots." Apart from other doings, or leavings undone, men, even the greatest, were not above pettiness—jealousy, personal hates, vindictiveness. Yet these men, whether great lovers or great haters—or both—were not afraid of IDEAS; did not stand in dread of the uncharted sea before it had become the common highway.

Is the New World, the modern "melting-pot," incapable of producing men of new vision, of creative power, along intellectual lines, of passionate sincerity? The air of America is said to be stimulating, and certainly as regards stimulation to physical energy, it is. Can it not stimulate to daring of mind? Such daring as is required, apparently, for the entertaining of a new idea—one not connected with "business efficiency"? Or to courage? Courage enough to be oneself; not an imitation of another? Must every idea, every theory or tentative belief, bear the stamp of approval of a hundred million, before, in this country, at the present

time, it is "safe" to hold it? "One does not like to be considered a crank, you know, different from other people." A thousand times since my return I have heard this remark, or one of similar purport.

This cringing fear of being "different"! It is this, perhaps, which more than anything else strikes the returning exile. Not only is this spirit inculcated and nurtured in the most highly recommended schools, wherein the young are trained to be one-hundred-per-cent-Americans, but it is reflected in the advertising pages of the most widely read magazines, pages more enlightening than those devoted to reading matter, as to the point of view, the mental horizon, of the literate American public. Interspersed with advertisements of near-silk and near-pearls which, "even to the eye of the expert," can not be detected from real ones, are advertisements of Somebody's Scrap-Book, or Somebody Else's short and cheap correspondence course, by which Everyman can talk like Every Other Man; be interested and "appear at home" in the same subjects as Every Other Man.

That to talk like Everyman, himself, be interested and "appear at home" in subjects which are of genuine, not imitation, interest to himself, might be of more vital value to Mr. Everyman; that by cultivating his own interests—surely no soul, in America, or elsewhere, can be utterly barren—he might be less of a bore to himself, also to his listeners, never seems to occur to Mr. Everyman, to his wife, or to the advertiser.

One is inclined to long—is tempted to say one wishes one had the right to use the word "homesick"—for those sections of France, of Austria, or other continental countries, where the inhabitants of each district, often of each village, are recognized by their distinctive dress, distinctive dialect, distinctive dances, and frequently distinctive forms of religious worship. The silver buttons that adorn the waistcoats of the men are genuine, as is the homespun stuff

of which the dresses of the women are made. There is no near-silk, no dollar-store pearls which "cannot be detected" from those costing ten thousand dollars. And as regards religion, whether the worship be that of the Blessed Virgin, or of the Goddess Perchta—a Tyrolean and Salzkammergut version of Freya of old—or, as in these districts not infrequently happens, a combination of the worship of both, this worship is genuine. The hills are ablaze with fires on the eve of St. John's Day, herbs are hung in the barn to avert the wrath of the dangerous Perchta, that she may not cause the cattle to be barren; villages are gay with ceremonial dances performed in her honor, not because those who light fires, or hang herbs, or dance, may be indistinguishable in mental mould or in glass of fashion from the folk living in Vienna or in Paris, but because such form of worship is the outward and visible sign of an inner spirit which is *itself;* which is not an expression of imitation belief, or of imitation interest in things which belong to minds moulded in different form.

The consequence is that such countries—those where genuineness exists, however either financially or socially "backward"—give the impression of being alive, vital; in a sense that, disappointing, humiliating, even, as it is to admit this, America at the present time does not—to the homecomer long expatriated.

Why pretend to be interested in what, in reality bores you? Or pretend to believe what you do not? What is the object? One is inclined to cry with Voltaire, *"Ecrasez l'infame!"* Surely hypocrisy is less admirable than "differentness"!

A short time ago a mother recommended to me a certain fashionable girl's boarding-school, because Mrs.—, the principal, taught Biblical history so that her daughter no longer questioned the actuality of Old Testament statements —Baalam and the Ass and other narratives of equal sanctity—or the Inspiration of the Sacred Book as a whole.

"Not that I, myself, believe in it all—quite," she admitted, "but it would be dangerous to allow girls to doubt."

"Why?"; I asked.

"Well, you know—."

But I didn't know. And don't know. I am still wondering wherein the danger lies for a young woman, as for any one else, to attempt to face life's problems—religious and otherwise—"straight"; to decide for herself what she can, and cannot, believe.

Since my conversation with the mother of the young girl in question, I have met the principal whom the mother recommended. She, like the mother, "has doubts." But—"It is better for the girls, probably, to believe it all. Anyway their parents want them taught so, and the trustees think it wiser." A form of wisdom shared by the Dean of another well known girl's school, who boasted—off the school premises—that she was a "rationalist"; yet in school conducted chapel service with great orthodox unctuousness and "Christian zeal." This was considered "wiser" by the trustees of this school also. Certainly it was less dangerous for the Dean, who wished to hold her post, and had aspirations toward the principalship of the school; aspirations which have since been fulfilled.

"Standing pat" seems to be essential for standing-in—with the powers that be. I am beginning to realize this. Yet I was taught at school that "the outstanding characteristic of the Anglo-Saxon is scorn of a lie." Perhaps "standing pat" when it means standing-in is not a lie. Wisdom truly is above rubies.

In the case of the mother referred to, who was herself a "doubter," yet thought it "dangerous" for her daughter to question, one is more puzzled. With her there was no obvious self-seeking; no school ma'm expediency. So with a father, in another Eastern state of "culture" (a university professor, incidentally; head of a certain scientific department) who said to me recently that while he, himself, was

distinctly a modernist in religion, yet he sent his children to a fundamentalist Sunday-school. Oh—it was just as well, he supposed, for them; and "people would think it strange if they did not go."

People would think it strange! So people thought of the mad Leonardo—only in his youthful days a harsher term was generally used in speaking of the illegitimate lad of Vinci. But an Anglo-Saxon, one is reminded, cannot be compared with a *wop*—in more high-brow circles, a "Latin." (There are times when we Americans like to be very Anglo-Saxon). Then what of thirteenth century Roger Bacon—in a country which was not Latin? He, in the opinion of his contemporaries, was not only mad but bad; had direct commerce with the devil. Was a danger to society. Friar Roger shrugged his shoulders, presumably, and went his way. Certainly he went his way—even at the risk of being burned. It did not worry him, apparently, that his thoughts and his interests were not in the fashion of those about him. He did not boast of near-intelligence indistinguishable from that of his confrères—either that of the good monks by whom he was surrounded, or that of the nobles, those representing the "best society" of his day and land. (It was of this same Roger Bacon, incidentally, that a young woman of twenty, in a collegiate girl's school in—oh, well, one of the states of America usually associated with intelligence and culture—asked, in all seriousness, a short time ago: "Is he in this year's 'Who's Who'?")

But to return to our muttons: It is not with orthodox Christianity—"fundamental" or otherwise—that I have a quarrel, or with those who "unfeignedly believe its holy gospel"; any more than I have with those who with unfeigned belief in the efficacy of the rite dance in honor of the goddess Perchta, or with those who bow in obeisance to other shrines alien to orthodox Christianity. My quarrel—rather my disappointment, for America I had been told was a land of "idealists"—lies with those whose ideal consists in

"playing safe," whether from expediency or fashion. Above all, it lies with smug self-complacency which regards such an ideal as the height of attainment, which boasts of it as representing the "level-headed American attitude." Does it? If so, can not too high a price be paid for "level-headedness"?

Oh, yes, out of a hundred and odd million, there are many who are neither smug nor self-complacent; nor even "level-headed"—But Gilbert Chesterton is reported to have said: "America is now middle-aged, an advocate of the tried and safe, while Europe enters upon the untried, seeking new things with the daring and rashness of youth."

Is Chesterton right? Before I returned to America I should have denied it. Is the taunt, "The trouble with most Americans is that they honestly believe they are better than men of other lands because they have more worldly goods," recently uttered of us by an intelligent Frenchman, true?

Yet, on the other hand—and there is an "other hand"—is it not encouraging that Americans themselves, those representing the more intelligent element, are becoming critical of themselves; of their *mores* and institutions, of the mould into which, it seems, American civilization is hardening? It does not require a German, like Keyserling, or an Alsatian-Frenchman, like André Siegfried, to point out the dangers of the present popular drift of American thought and ideal (or lack of it), or the weaknesses of the American political and economic system. Nor does it require an altogether destructive iconoclast, of the type of the well-known H. L. Mencken. The fact that certain of the more sober and thoughtful of the American writers and public speakers are becoming critical of the less admirable characteristics and tendencies of the present-day American life, are beginning to wonder both "Whither?" and "Why?" is, in itself, a most hopeful sign. As yet these are but "voices" (to paraphrase slightly) "crying in the wilderness." But voices in the wilderness often, in the end, gain a hearing.

Another hopeful sign of the trend of thought in present-day America (I speak, of course, from my own perhaps somewhat "heterodox" point of view) is the practically complete *volteface* of the better class and more conservative type of American periodical within the past twelve years in regard to the much discussed "Russian situation." I happen to know (from experience) that in 1919-1920 to speak of the Soviet government of Russia—even of its possibilities in modified form—in terms other than those of contempt and loathing was not only to court social ostracism, but meant actually to be placed under police surveillance.

Today, magazines supposedly among the most conservative (e. g. The *Atlantic Monthly*, *Scribners*, and *Harper's* publish articles by those recently returned from Russia who openly give praise where apparently praise is due—to those phases of the Soviet form of government from which America—and other "capitalistic" governments—might well pay heed; inasmuch as by methods advocated (and practically adopted) in Soviet Russia unnecessary suffering of the aged, of the infirm, of the financially and socially helpless is alleviated; in many cases prevented—a greater achievement.

Again "voices crying in the wilderness" and these cries may represent wasted effort, energy expended in vain, in a country where individual cases of suffering are relieved with generosity, but where the causes underlying this suffering are so little heeded as in America by those with influence and those in power. Yet—"the tears of the weak wash away the thrones of kings" is an Oriental saying, very old; the truth of which has been proved more than once in history. And "kings" may be those of industry of an outworn economic system as well as those born to hereditary rule.

The present financial depression in America, the far-reaching consequences of which as regards suffering it is unnecessary to stress, has had another result perhaps less

generally noted by the popular mind. That is, it has caused *thought, questioning, wondering,* concerning, fundamental economic and "social" (in the sense of sociological) problems on the part of the man (and "hoefentlich" the woman) whose thoughts hitherto have been concerned chiefly with "keeping up with the Jones's"—i. e. bridge, radio, automobile, golf, and only too often, the latest personal: "Have you heard—?"

What the outcome will be, it would take one wiser than I even to suggest, but as James Truslow Adams, in his able article in the January (1932) *Atlantic Monthly,* (in effect a criticism of what goes by the name of "democracy") remarks, "The one thing it is certain to predict is that change is ceaseless." Personally, to me it seems—however mistakenly—that the changes which America is called upon to face in practically the immediate future are of a more radical nature than any which it has been her necessity to face since, as a nation, she came into being in the latter part of the 18th century.

What these changes will be—other than that they will almost certainly involve a drastic reshaping of her economic system, and almost as certainly a more tolerant and intelligent religious outlook and creed on the part of the masses—how long the time required for their effecting, what the outcome will be, whether for better or worse—who can say?

As Irwin Edman remarks, in his excellent article "Salute to Tomorrow," in the January (1932) *Forum,* "We can no longer look forward, as progressive minded people have looked forward in the past, to a better world. The kind of world in which we may expect to live will inevitably be totally changed in character. It will, *if anarchy or destruction does not overtake us first,** be not a better world, but a very different kind of good one."

Watchman, what of the night?

*Italics my own. J. B. M-M.

A Section of Poetry

The Woodcutter

By O. REUTINGER

Old Sandoval had seen the seasons fade
Two hundred times and yet not one was new
In the far canyons where he hewed his trade
In firewood, as fathers used to do.
Content he was to work apart from men
And feel the warm sweat rise and breathe the keen
Odor of those twisted trees and then
If beans, or flour, or the chili string grew lean
He'd pile a creaking wagon high with logs
To trade in town. But always to the trees
He'd come again, the barking of his dogs
The only welcome on the ceaseless breeze.
"Poor lonely one" his friends would pityingly say;
But he would smile at the hills and drive away.

MAN—man

By JOSEPH T. MOZLEY

ACT I

The drone of motors in the sky,
Buildings piled into the sky,
Mountains moved across the plains,
Rivers dammed in their flow,
Steel, shafts, cranks, machines—
Gears, ships, plows, dynamite—
Boilers, rivets, levers, electricity—
Cables, beams, autos, radio—
Whistles, bells, tooting, clanging—
Grotesque giant Commercialism
Shaking the earth's bowels—
MAN—*Supreme!*

ACT II

Moonlight and evening stars,
Day dawning across the seas,
Sunset resting in the west aglow,
Life emerging in the spring,
Seasons, day, night, breezes—
Moon, sun, stars, planets—
Sky, life, growth, flowers—
Love, joy, beauty, happiness—
Lightning, thunder, snow, rain—
Clouds, winds, earthquakes, typhoons—
Time, death, heaven, hell, *GOD!*—
man—*DUST!*

SPRING IN THE SANDIAS

(Mountains Near Albuquerque, N. M.)

By MARY FRANCIS

There's a gentle tapping on my pane,
  Like tiny, silver drops of midnight rain;
I wonder if, this time, it could be he,
  My Jose? I must rise from bed to see.
Ah no, 'tis just the tamarisk once more
  Softly swaying, as it has before—
I love to see it veil the moon's white face
  With dusky folds of ancient Spanish lace.
The air is sweet with flower dust tonight,
  It seems to make my lonely heart grow light;
I feel, somehow, that he is with me here,
  I even see the dark eyes of my dear,
The look upon his face; he spoke my name
  So gently—oh to leave me thus in shame!
How could I know that I was only one
  Of many girls he'd kissed, of hearts he'd won
And broken too. Oh would that I could score
  It off, and go on, carefree, like a whore!—
—That gentle tapping, tapping on my pane
  Makes me believe that he'll come back again.
Last winter, when the wind blew free and strong
  Down the deep arroyo, days were long;
It blew in drifts—a hard and crackling snow
  That hid the windows, since our hut is low.
For many days we had to stay within,
  And there was grandma, snarling at my sin,
The little brothers giggling at my fate,
  And mama, preaching morals, all too late.
After a while, when days were not so chill
  We ventured to the church upon the hill,
Piled in the wagon, up the steep incline,
  With merry church bells ringing all the time.
I thought, perhaps, I'd get a little cheer
  To take the holy sacrament, and hear
Blessings that the kind old priest was giving;
  But that day seemed to take all joy from living;
For not one neighbor I had known before
  Would smile at me within the sacred door,
But muttered low, while sprinkling holy water,
  "I wish you'd look at Manuelito's daughter."

—Those winter days I wished so to be dead,
How many were the bitter tears I shed!
Before Good Friday, papa left one night,
To join the Penitentes, 'twas his right,
But mama sat with grandma, then, and wept
Because, in spite of all their prayers, he'd left.
I thought of papa on the hill above,
And longed to sacrifice myself for love;
I wished that I had gone to join them too;
I might have felt that joyful pain he knew.
—But Spring has come to me at last, sweet spring,
And I have heart to laugh at anything;
The apple trees are blooming in the lane,
And there's a tapping, tapping at my pane.

Reclusion

By MAUDE DAVIS CROSNO

Bare,
Before the world
I hang
Upon this cross called life

Sharp!
Man's laughter stings
My flesh—
A beating rain with wind.

Soul,
The blanket earth
Will hide
Us both when I have died.

I.

THE AWAKENING

By MARY FRANCIS

I saw the clouds drift silently away—
  The tears of night before the sun must flee,
And lo! An open gate my eyes could see—
  A gate that had been shut until today;
With you, dear, waiting there to lead the way,
  Life seemed again quite like it used to be;
A bright rose garden gaily beckoned me,
  With charming paths that I would love to stray;

But suddenly, the wind blew through my room
  So loudly that I woke to face the dawn,
Cold it was, and veiled in rainy gloom—
  With aching heart, I found that you were gone.
I shut my window to the ugly morn,
  But knew that joy from sordidness was born.

II.

SKY ROCKET

Must I lie loveless every starry night,
  And starve for want of love throughout the day,
In search of chastity, not love's delight.
  This is but stark hypocrisy, I say.
Tears cannot ease the ever stubborn pain
  Of lonesome nights, a lonesome chilly bed,
Yet I must banish passion from my brain
  And take up something serious instead,
For, if I dared to pass my conscience by,
  Gaily heedless of conventions frail,
I'd let my heart soar like a rocket high
  Swirling upward in a fiery trail:
And when it could not reach a haven higher
  What bliss to let it break in streams of fire!

III.

I shall become as callous as this leaf
  Rotting on the grass here, dry and dead,
Indifferent to either joy or grief,
  Indifferent to the stinging words you said.
The frost will come and go; I shall not feel
  Solicitude for helpless, stricken flowers,
For I have known a death that did not steal
  My life away in but a few short hours.
There was a time when autumn made me yearn
  With all my heart for you; that time has passed,
For soon I shall not want you to return,
  And if you grew quite desolate at last,
Even if your heart were broken, too,
  I only could but laugh and laugh at you!

To Fugitives

By MARY GARDNER

You who have tossed the stars aside and quenched
The sunshine in the darkness of your mind,
Whose eyes are blind to dawns, whose hands are clenched
Like leeches that cannot lose nor find—
You will not lock your heart for ever more
Against the call of springtime from the earth;
A blackbird's note will open wide your door
When summer storms and laughter have new birth.

Then shall the lilac's fragrance come to hover
Over the fugitive yearning in your brain,
The twilight wrap around you like a lover,
And all the loveliness you did disdain
Will haunt your memory and still your cry
Of fear—that you are chosen now to die.

Soliloquy of Dreams

By NELLIE CLARK

What are my dreams? I would you had not asked me;
Why? For I am loath to plunge their fitful light
Into the shroud of speech; but let me rest.
Ah yes, you spoke of dreams, before my brain
Threw dust into their world-dimmed eyes;
But if you will, take those that speak to me
In crystal tones, clearly and unconfused.
The others? Oh, I call them souls of dreams.
They're not enough of substance to call real,
And yet so much of spirit that I fear
To seize their wings lest star dust find them out,
Or earth dust chain them down to fade.
When I was young, I read from youthful books,
And heroes' fortunes bounded all my thoughts
With misty yearnings for the stuff of them;
Their strivings rocketed my earth-tipped soul
Into the clouds of fancy's fadeless heights,
When I was young; you ask for more of this?
You'll find no meaning, for my life's a lake
That stretches far to feel the depths of peace
In waters tenanted by poets' dreams.
Now I am old. My joys and pains are one
With living, and my weary heart finds rest
In thankfulness for life made rich with loving,
And death made simple through a poet's lips.
Shelley, it was who lived so near to heaven
That singing loaned enrichment to the choir
Of poets' voices harmonizing death,
And dying gave completion to the songs
Whose music echoed notes he shared with God.
What greater joy than meeting earthly friends
As Shelley did, when held in deepest life
With Shakespeare, Dante, Keats, and Chaucer too,
One to the other, in communion at song's spring;
Ah, happiness to be joined by death to life
With that "immortal band" he knew.
Their home's heaven's inmost paradise,
My heaven is a home but shared with them
In hope they left of life's eternity.

Question and Answer

By NELLIE CLARK

QUESTION

So, its teaching you're doing, you say with a smile,
And you puff on that pipe; don't you ever grow tired
Of looking at ignorance? Or does patience beguile
The dreaming that teaching has heavily mired
In your artistic soul? Oh, I know you've found joy
In the sharing of beauty in other men's books,
But is it enough, when your own thoughts annoy
The humdrum of teaching? And the spirit that looks
From your eyes, is it happy in seeing for others' blind souls
The worth of a sonnet, the ecstasy sighing
In words that are printed from thought that upholds
The purpose of living, the falsehood of dying?

ANSWER

Yes, I am happy, though you see it unclearly,
And the droop of my eyelid betokens no sadness,
For I've lived quite a while, and I've loved overdearly
The poems and books that you say have brought gladness
To others' dry breasts. And I've written a story
Of gratitude's fashioning, and other men's owing;
My reward is their stirring to feel for the glory
In words that the gods have loaned for my sowing.
So you see, though another might kneel to ambition,
My happiness rests in the opening of souls
To the beauty in after-life's remnant nutrition
That is found in the loving my teaching unfolds.

The Plight of Pietro Carboni

Racketeers—Old and New

By F. M. KERCHEVILLE

PIETRO, a very recent arrival, was the most restless and disappointed shade in all Purgatory. Nothing seemed to suit him. In the flesh, Pietro Carboni had been a hard working business men; a man with a fair education, a long head, and a shrewd tongue. He had always been extremely energetic in life, and the utter listlessness of Hell drove him almost to distraction. Among men, he had been a sort of combination hardware and fruit merchant, having dealt much in lead and pineapples. Shortly previous to his sudden demise, Pietro had been deeply concerned over the depression which had hit his mercantile activities. Plans for the salvation of big business bubbled up in his mind like boiling water in a pot. Always a firm believer in distribution, Carboni had finally settled upon that famous word as representing the idea that should ultimately save the world from chaos.

Such a man was Piero Carboni in the flesh, but Pietro was no longer in the flesh. He existed now only in the spirit. One beautiful night he was on the spot as usual attending to business, when a rival tradesman suddenly picked him up in a high powered car and took him many miles into another metropolis. It was there in that second metropolis that Pietro had suddenly become a spirit. Some attributed his death to heart failure; but his closest friends maintained that poor Carboni's death had been caused by a severe case of lead poisoning, aggravated by the ill effects of a couple of poisoned pineapples. However it may have happened, the inevitable fact remained that Pietro was only a mere shadow of his former self.

And so Pietro Carboni dejectedly paced the cool parks of Purgatory vainly wishing for a chance to get back

among the big business men of the earth. With one stroke of genius he would end the depression, and save the world for Democracy and Big Business. He had tried to organize the boldest shades among his associates in Hades, storm the gates of the dark palace, and rush back to settle the problems on the earth. Pietro had picked only the names of his great predecessors in business, great distributors of lead and various other metals. On his list had appeared the names of such immortals as my Lord Attila, Baron Ghenghis Khan, Timurlane, Alexander, J. Caesar, Nero, Caesare, Borgia, Napoleon, Jean Lafitte, and Jessie James. But alas! Pietro had been bitterly disappointed. All of these worthies seemed to have lost their nerve and mettle as well as their taste for life among men. Even Napoleon who had distributed the bones of Frenchmen all the way from Sicily to Siberia, and proved himself one of the greatest advertising geniuses of all time would have nothing to do with Carboni and his plan. Like all the others, the First Consul's shadow flatly refused to listen to poor Pietro's petition, and had turned gloomily back to his own doleful meditations.

Pietro was indeed downcast. He was losing confidence in both men and spirits, surely a parlous state for a business man to be in. Poor Pietro was only going the way of a thinker and didn't know it. "Think of great ghosts," he mused, "satisfied merely to play poker, thumb a bottle or read poetry throughout eternity when one of the most profitable branches of big business was pleading, waiting in vain for a saviour!"

Disgusted with the apathy and lack of genuine ambition on the part of the shades of his great predecessors in the traffic with lead, Pietro was just on the point of giving up in despair when there flashed across his brain ether another bright idea. This was his second idea in Purgatory, within a short space, and Pietro tingled with egoism to think that he had had more genuine thoughts

after death than most men are ever able to muster even in a long lifetime. At last he had the solution! At last he would find a genuine associate for his scheme. He would hie him to that part of Purgatory that hovered over merrie Old England, and there in a shadowy greenwood forest he would whisper his plans in the ever-itching ears of the mighty Robin Hood, probably the greatest and most successful advertiser this old world has ever known. Why had he not thought of Robin before? Did not Mr. Hood rise from nothing, enter the lists of business in the Middle Ages by trading with rich travelers, and win every prize offered by the Greenwood Chamber of Commerce for fair dealing and straight shooting? Had not Robin managed to live for centuries with only his great nerve for capital stock, and his name for credit? Has he not even now an enviable place in the hearts of the people that will long outlive in immortality all those fools who had refused Pietro's fine offer. Robin's name and Pietro's brain, what a combination!

Pietro could scarcely contain all of his trembling ether for sheer joy. Like a flash he was away in search of the shade of Robin Hood. He was not disappointed, for soon he found the great yoeman busily engaged in target practice beneath the shade of a giant Greenwood tree in the coolest corner of Purgatory. This innocent pastime of target shooting brought thrills and fond memories to Pietro. He had been an ardent sportsman in his own lifetime, although he had never cared much for still targets. His specialty had always been live game, preferably moving, and in this sport he had carried off all prizes ever offered by the League of Associated Distributors of Lead. In fact, good marksmanship was a hobby with Pietro, along with his incidental peddling of fine wines.

For a few minutes Pietro watched the matchless shooting of Robin Hood, Little John, and Will Scarlet (the original three musketeers who used long bows instead of muskets). He saw the fine, feathered arrows flit like light rays

straight into the heart of a distant target. "If these men can shoot like this with antiquated long bows, what could they not learn to do with a modern 'gat'?" Pietro mused as he anticipated many lively moments of great sport in the future. At first the three yoemen were so intent upon their game that they failed to notice Pietro, but soon the keen eye of Robin caught a glimpse of the intruding ghost. Instantly the bowmen turned to flee, mistaking Pietro for the Sheriff of Nottinghamshire.

It was now or never with Carboni, and he shouted out in a clear ringing etherial voice that echoed through the vales of Purgatory—"Hey, come back, boys, I am no sheriff —what's the matter with you? Don't you know me? I am Pietro Carboni, one of your modern representatives come for a conference. Don't let me interrupt your game."

Robin Hood, who was slightly nervous but not afraid of the devil, came slowly back followed by his two henchmen. He had always been known as a hale-fellow-well-met and a hospitable chap, so he lost no time in becoming acquainted. "Good morrow, stranger, wouldn't you like to join our merry company in a little bow twanging at yon fair target?" Pietro replied that he would certainly like to join the circle but that he was no good with the bow, assuring the pleasant highwayman, however, that if he would permit him to use his "gat" he'd show the company some real shooting. Now Robin, who lived, moved, and had his being some half millineum ago, knew perilously little of modern slang and instantly inquired of Pietro: "Marry good stranger, what meanest thou by thy 'gat'? is't some new-fangled long bow, perchance?"

"No, I should say not," answered Pietro, "why in the hell don't you keep up with the times, Robin? A 'gat' is a modern product of civilization and prosperity. Why, I bet you dudes don't even know the meaning of civilization. Civilization is spread by the 'gat.' Why, in our day the 'gat' is the symbol of justice. You probably don't know what

justice is either. God! why don't you be modern? The 'gat' is the great modern arbitrator. Men use its persuasive power to settle nearly all great questions and problems among nations. Don't you know what a 'gat' is? Where in the hell were you fellows from 1914 to 1918? Asleep probably under some Greenwood tree. Why the 'gat' settled that little dispute easy as pie. They nearly ruined the good work by that damn paper they patched up at the end of the scrap, but that's no fault of the 'gat.' But what's the use. I could talk to you fellows all day about the 'gat,' but you'd never understand. You don't even try to keep up with progress and prosperity."

Poor Robin was fairly well bewildered at the end of Pietro's long speech on the virtues of the "gat." The immortal yoeman finally decided to let Pietro use whatever instrument he chose in the shooting match, for Robin was always known as a good fellow and explained that he had no desire to interfere with Pietro's "progress." Then Pietro, after fondly stroking his beloved "gat," completely riddled and annihilated the target with one quick shot.

"Bravo," shouted Robin Hood, who always gave even the devil his dues, "an excellent shot, stranger, a most fair excellent shot. Thou hast shattered yon target into a thousand pieces. Marry, Sir, I could do no better myself."

"Not bad," replied Pietro, "but you talk about shattering targets. That's not anything to what I can show you with one of my favorite pineapples. Why, with one of my pineapples of progress I can shatter a thousand targets at once."

"What! speakest thou of fruit, stranger? Fain woulds't thou attempt to scatter targets with a piece of fruit? What is this thou describest as a shooting pineapple? I would know more of it."

Pietro was fairly disgusted by such a display of ignorance on the part of a shade so great as that of Robin Hood. He laughed a scornful laugh that shook the under-

brush in the Purgatorial forest, and inquired: "Come on Robin, you don't mean to say you're that far behind the times? You don't mean to say you never heard of a 'pineapple'?"

"Yes," replied the great shade dressed in Lincoln green, " 'tis exactly what I mean. Never have I heard of such a pineapple. They tell me that my great rival with the bow, a Swiss by the name of William Tell, used fruit once in target practice at the suggestion of a king. But, marry, sir, 'twas not pineapple. 'Twas only an apple such as we were wont to steal long, long ago in merrie England."

"A pineapple," said Pietro with the air of one who knew of what he spoke, "is another useful product of civilization, a mark of progress. Wherever civilized men go, along goes the 'pineapple.' It is quite a dangerous fruit to those who don't know how to use it. It is sometimes extremely hard on the stomach, and often does considerable damage to other parts of the anatomy. The fruit is prized highly among certain peoples of the earth, especially the Russians, for its vigorous tonic effect and its power as an antidote for certain old and established diseases and ancient poisons."

At the conclusion of this harangue, and before the bewildered Robin Hood could ask for further information, Pietro pulled a ripe pineapple, fondled it tenderly for a mere split second, and tossed it in the general direction of the new target. Instantly there burst forth such a roar and concussion as Hades had never before known. Spirits were blown in all directions, the Greenwood trees were shattered into bits, and the four shades were blown half way to America. Collecting his wits, Robin suggested that some of the fruit be sold to His Satanic Majesty for use in putting down insurrections in Purgatory. Little John and Will Scarlet nodded their assent to so wonderful a plan for the enforcement of law even in hell.

After the excitement caused by the bursting pineapple, Robin first broke the silence:

"Stranger, I perceive that thou art an exceedingly fine and powerful fellow. From what land hailest thou, and of what blood art thou, and what dost thou call thyself, my good fellow?"

"I dropped in from America," proudly answered Pietro. "I'm damned if I know what sort of blood's in me, but I am an American of Italian parentage and proud as hell of it. My name's Pietro—Pietro Carboni."

"And so I thought," continued Robin Hood, "thy tongue was not altogether unintelligible to me. I could almost understand thee. Therefore, well did I know thou must must have hailed from some place akin to England. And so thou hailest from America. Tell me, was not even America once counted English soil?"

"Hell, yes, but we whipped those damned English two or three times since then—why America can whip anything on earth cause she's got all the money, all the big business, and all the civilization, progress and prosperity on earth."

This last speech made Robin Hood smile and convinced him that Pietro was a one hundred percent American. Other returning shades had told him of certain notable characteristics of the Americans. But Robin liked Pietro, and offered him a chance to join the Greenwood Outlaw Association, Inc. He selected two large sticks, gave one to Pietro and retained the other. He planted himself squarely in the midst of a small Purgatorial path, and challenged Carboni to remove him. Now Pietro was a past master at handling big sticks. In his business he had been called upon often to handle the big sticks of the opposition, and with the dexterity of a master, he soon had Robin "fixed," after which he was taken into the inner circle and treated as a brother.

Pietro promply gave Robin to understand that he had come to offer the great outlaw the chance of two lifetimes.

Well did he explain and insist on the combination of brains and name. As cleverly as he could in order not to wound the honor of Robin, Pietro told him of the true nature of his own business, of its profits and its perils. But Robin was English and proved quite stubborn.

"And so thou comest from progressive and prosperous America! Tell me, Pietro, on thy honor, has thy nation produced better poetry than that of one Will Shakespeare, who lived in England somewhat after my own time, or hast thou seen in thy day braver deeds than were done by me? What dost thou mean by civilization and progress? Has any one of thy nation written better works than did one François Villon, a man of our own calling and caliber who lived in France near my time?", calmly asked Robin.

"Why, Robin, you poor fool," shouted Pietro, "what has poetry, brave deeds, and poets got to do with civilization? You know damn well that literature has nothing to do with progress. Why, even the Greeks had a pretty fair literature back there in Athens, but hell, what did they know of civilization. Why, there wasn't an automobile in all Greece, the poor fools didn't know what tooth paste was, Prohibition, Road Houses, and Speakeasies were unknown and radio had not even been dreamed of, to say nothing of the aeroplane! Why, man, these are things that make for progress, and we got 'em all and then some in America."

"Well hast thou answered, Pietro, almost thou persuadest me to become an American," sadly spoke Robin Hood, "but tell me, good Pietro, what hast thy nation done in those ancient realms of Law, Science, Education, and Religion? How has thy progress affected these? Hast thou better laws than Rome? Hast thou gone forward in all these?"

Pietro was losing his patience. He hadn't come to see Robin Hood in order to answer silly questions. Besides that, he had always believed Robin to be a happy-go-lucky fellow, spending his time killing the King's deer and shoot-

ing up his sheriffs. But Pietro had miscalculated the shrewdness of the English Outlaw's mind, and had completely ignored the fact that a soul has plenty of time to sober up during five hundred years and more in Purgatory.

"Law, you say," Pietro answered, "why in America we have more laws and more lawyers than the rest of the world combined. Every year our state and national legislatures grind out enough laws to make the Roman Corpus Juris look like simple directions for making tea. We never know which laws to obey and which to evade. So we usually evade them all. You spoke of science. Say, we have a science for everything now. We have more scientists in one American city than you could find in all the rest of the world. Why, man, we are all men of science, and living in a purely scientific age. In education we're even greater. America has more colleges and universities than Athens had gods, turning out hundreds of thousands of lawyers, economists, and business experts each year. These young people will soon solve all the problems of the world, including those questions asked by old Socrates so long ago. Of course, it appears that we're in a pretty sorry mess now. Guess our young men have been spending too much time running our science and machines to think about anything else."

"In the matter of religion, we're a power of the earth. We're one of the most religious of all nations. Why, Robin, you won't believe it but every little American town has from three to a dozen different churches, all worshipping God in a different way, and our cities have skyscraper cathedrals trying to reach heaven by the architectural route. Of course, they tell me that was tried once before long ago at Babel, but most Americans believe the idea originated in the United States. A new religious sect spring up almost daily to add to hundreds already existing. Say, when they get to quarrelling with each other it's certainly a mess. Anybody with a pretty face or a nice figure can start a

church in America, build a temple, and save souls galore. We are certainly a religious people."

At the end of this tirade of Pietro's, Robin could only look at him open-mouthed. After the wonderful oratory had soaked in, Robin came back to business. Pietro had already told him some of the inside information commonly referred to as "the dope."

"Sayest thou, Pietro, that in thy business thou art sometimes forced to take a few lives, and that for this gentle undertaking thou usest a rapid fire device that will slay a hundred men a minute? Callest thou this good sportsmanship? Is this also a product of civilization and progress?"

"There you go again, Robin. Sure, this type of 'gat' represents the best brains in civilization. Anyway, what the hell has progress to do with sportsmanship? You got to forget your sportsmanship when you start this game. Where do you think we got the idea for using this 'gat?' From civilized nations, of course. The big men of the nations made the 'gat' to use on us. They called us out, taught us how to use them, and then forced us to practice on each other in another game, just like ours, only bigger. After we'd killed each other by the millions, then they told us we'd only been fighting more or less for nothing, told us to go back home, get religion again, be good boys, love one another, until they could persuade us to kill each other again. But we'd learned how to use the 'gats' and kill at their command and profit, so we began a little shooting on our own. The damn fools, did they think we were dumbbells, just to kill whenever they wanted us to?"

"But, Pietro, dost thou think it fair to kill for what thou callest 'business?' Dost thy conscience not rebel at what thou callest 'gang warfare'?" asked Robin anxiously.

"Hell, no!" snapped Pietro—"they taught us to kill on a grand scale by the millions, and now when we have a little surprise party and shoot up seven or eight members

of a competing company they raise all kinds of hell. Why, we even use the same 'gats' they once issued us to kill each other with, and then all this hullabaloo when we knock off a few competitors! It makes me sick to hear all their bellyachin' about law and order."

"But how is't with the law, Pietro? Dost thou and thy fellow merchants not fear the law?" interrupted Robin.

"We fear the law! You don't know us, big boy. We fear the law less than you and your gang feared the old Sheriff of Nottinghamshire. More'n half the officers are on our side, living off us—and there's one law that is so damned unpopular that they'll never enforce it on earth. No, we fear our competitors in business far more than we fear the law. It's the law that gives us the danger, the romance, and the profits. We couldn't exist without the law. Our slogan is Law, law, our kingdom for the law. Why if the few officers who are not on our own payroll would lay off us for a while we'd soon bump each other off. It's the law that holds us together. Hell, no, we don't fear the law."

Robin, being an Englishman, was astounded at such a declaration of open disrespect and defiance of the ancient and honored Corpus Juris. He gave Pietro to understand that though he was a highwayman, and often for fun shot the whiskers off the Sheriff of Nottinghamshire, he was a respecter of the basic principles of English law. Robin maintained that some law was necessary. To which Pietro replied that he could not respect the law when neither the officials nor the people respected it.

By this time the shades as they talked had wandered far out of Purgatory, almost to the shores of America. Pietro proposed that Robin and his henchmen come and inspect the day's activity of his former business for themselves, and thus be convinced of its greatness. To this Robin readily consented. He had always been a curious fellow. As they made their way toward a certain section of a large American city, Robin asked:

"Pietro, dost thou and thy associates believe in business always, and only business? Hast thou no sort of amusements? Dost ever have any shooting matches, and the like? Thou knowest full well the old saying that all work is not good."

"Amusements," exclaimed Pietro, "I'll say we have amusements. We have many an exiciting game. We're always on the spot when it comes to fun. Why man, no people on earth have more fun. We are always taking each other for long, exciting rides. Gee, you don't know what fun is. And shooting matches—Say, you just ought to see some of our shooting matches. We sure put on the dog. And we never shoot at any damned bull's-eye or willow wand. We shoot at live moving targets. Why, man, when we shoot everything is moving, both the target and the 'gat.' And we seldom miss our mark. Talk about fun, we have it. Man, the last big shooting match we had I won the three biggest prizes. Gee, there was some real shooting that day. And what do you think I got for prizes? No silver bugle horn filled with pennies nor any silver-tipped arrow—no, sir, we give up-to-date prizes when we give 'em, 'prizes of progress,' we call 'em. That day I'm speaking of I carried off a gold plated machine gun, a silver inlaid pineapple, and a prize pint of powerful perfume that we call 'soup' or 'nitro' in a plush box decorated with Mother o' Pearl. Boy, those were prizes worth shooting for, and I won 'em all."

Robin's ether trembled with enthusiasm and anticipation at this brave speech of Pietro's. He was close now to a decision in favor of big business, to casting in his lot with Carboni and his straight-shooting associates. Nothing thrilled Robin more than a good, fair shooting match where both the shooter and the target had a fair and equal chance. Pietro sensed his advantage and waxed eloquent as they moved along, telling Robin wonderful tales of swiftly moving trains of precious treasure, of daring battles against

unjust and numberless enemies, of mighty forays into rival territory, and of skirmishes with officers no more dangerous, but far more exciting than those with the old shire-reeves of merry England. They were now entering the domains of Pietro's earthly business, and Robin, Little John, and Will Scarlet were all dazed by the splendour of Pietro's palatial abode and by the glorious sights of an American city.

Pietro was exultant and happy now for the first time in many Purgatorial moons. He felt sure that Robin would fall, as he began to show the veteran highwayman through the marvelous streets of his own business district. But alas and alack, brief was his moment of joy. Once more Pietro was to be bitterly disappointed, and this time it proved to be his doom! As they swung down the street, they caught sight of a powerful limousine crammed full of Pietro's business associates who were bent on collecting a long over-due bill from a rival merchant. Before Pietro could utter a command, his earthly successors began their act of collection and distribution. A large 'gat' went into action, rattling its anger like a gigantic serpent, and spitting forth a tongue of fire that respected neither friend nor foe. Men, women, and children ran screaming in all directions. As the death car roared away into the distance and out of view, it left in its wake the bodies of three little, black, curly-headed urchins who (because they had no park in which to play) had been playing in the street. The little fellows were mangled and torn, each bleeding from a dozen different wounds. Pietro rushed Robin away so he could see no more, whispering to him as they left the scene:

"Don't pay any attention to that, Robin. It's nothing. Business is business, and there's plenty of kids left, and plenty more to come. The mothers'll soon forget. There'll be a nice, beautiful funeral. The officers and law'll start a big hullabaloo for a few days to please the angry people. My associates'll get away, or if they're caught, they'll get

out on bond, and in a month it'll all be forgotten. That's the way it's always been. You take things too seriously, Robin."

Robin was not listening to Pietro. He hadn't heard a word of that truthful but diplomatic speech. Robin, though only a shadow, was pale and choked with rage. Long did he stare at the now trembling Pietro, then poured out his anger in a hoarse whisper:

"Pietro, thou art a damnable liar, a cheat, a braggart, and a knave. Thou art lower than the vermin on yonder dog. Callest thou this business genuine outlawry, thou scurvy wretch? 'Tis not true highwaymanship but foulest murder. Truly did I slay the King's deer, and now and then a man, but never did I slaughter innocent children. Thou lying dog, I'll have nothing more to do with thee and thy tribe of murderers." So saying, Robin drew his broadsword, and had Pietro been anything but a shade, he would have cut him asunder then and there.

For the first time in his life Pietro had heard a genuine rebuke, and that came from the outraged shade of an outlaw, one of his own ancestors. Sorrowfully he watched Robin Hood and his followers disappear into the shadows of Purgatory. Still trembling, Pietro stood alone now between the realms of the living and the dead. He could not re-enter the ranks of the living; he dreaded to face the Governor of the dead. His accustomed nerve and bravado which never before had failed, now suddenly left him. After much hesitation, he started slowly and hesitatingly back to Hades. The Director of the Dark Abode met him at the border, and flatly refused him entrance, telling him in no uncertain terms that a shade must either be a citizen of Purgatory or not. Even Hades demanded loyalty. And for the second time in his life Pietro felt the voice of authority that demanded and received respect. And this time, the voice was that of Lucifer himself. Pietro had lived long years in a Republic of progress and civilization

without having once been brought to a show-down. He had never known nor did he ever care whether he was a citizen or not. Now he was humbled to think he had been brought to his senses by an immortal robber and an ancient devil.

Soon, however, Pietro's nerve returned, and at least part of his ingenuity. His old plan of curing the world's business ills still haunted his shadowy brain. He was a big business man, and it was up to big business, he thought, to lead the world forth once more into the light of progress and prosperity. Civilization must be saved. During many dreary months he prepared two enormous volumes, the one on law and the other on economics. One day he softly entered the seat of government, and placed his ponderous volumes on the private desk of the President of the Republic. Thus finally satisfied, he drifted away into oblivion. Poor Pietro! Little did he know that on that same day the Chief Executive went on an extended fishing trip, the world's economists went into voluntary exile, and the ancient gods went to sleep. And life in all her grandeur and sordidness crept slowly forward as she has done these several millions of years.

Fragile

By MAUDE DAVIS CROSNO

There are so many things to be quite mad about,
Quite mad, my friend!
So dare I mock your madness?

And many, many things to grow quite sad about—
They have no end;
So dare I smile at sadness?

But yet, my friend, the small delights that make us glad
Are golden joys
So blackly edged with madness.

Dead Voices

By ALICE WILSON

Where go the voices of those who are dead?
Tell me—where go the voices?
Ah! Yesterday's music, the words you last said
Are they lost? Alas! Are they lost?

Oh no! They have not fled:
You can hear them in the beat
Of the raindrops on the street.
You can hear them in the whine
Of the lonely restless pine.
You can hear them in the roar
Of the breakers on the shore.

Oh no! They still linger like ghosts of the past
Still linger like ghosts of the past!
Composing with nature a symphony vast—
The Hymn of the Universe!

A Scientific Basis for Humanism*

By EDGAR L. HEWETT

WE OBSERVE that humanism is now occasionally referred to as a "lost cause." Many believe that the so-called "humanities" have been permanently superseded in our college curricula by the natural and applied sciences. Some restrict the term "humanism" to the field of literature, and we learn that a bitter fight is now on among the literati themselves over this aspect of learning, which, in the nineteenth century, gave us James Russell Lowell, Ralph Waldo Emerson, and Charles Eliot Norton; in our own day, Brander Matthews, Irving Babbitt, and Frank Jewett Mather; and which, during the centuries in which sound scholarship has been the goal of universities, has been considered the firm foundation of a liberal education.

The controversy over humanism begins to resemble a senatorial debate. It abounds in such expressions as "antique idea," "discredited doctrines," "amusing nonsense." A critical magazine article is entitled, "What is this Humanism?" Now, you think, we shall have something illuminating. For, after reading most of the dissertations on humanism, you have been unable to discover an accepted definition of the term. It appears to be a subject over which countless essayists and controversialists have contended, without taking the trouble to state what the quarrel is about. So you welcome a writer who will clarify the term. What a disappointment to find throughout ten caustic pages not a line that justifies the title of the article —no attempt at clear definition, but much use of such vague terms as "the antecedently real," "dissident literary philosophies," and so forth.

I started life with a passionate interest in everything in nature. That has never abated; as a boy I supposed, of course, I would be a naturalist. If there was anything

*Read at a meeting of the Albuquerque Chapter of Phi Kappa Phi, in May, 1931. 1931.

under the sun that I didn't collect, I should like to know about it yet. I supposed I was irrevocably wedded to the sciences of life; but before I was half way through high school, I found I was equally enamored of ancient history. I wound up by becoming a devout humanist. And to be something of both naturalist and humanist, has caused no intellectual discomfort. Quite the contrary, I can conceive of no sound university course that does not embody both these great aspects of learning in about equal proportions. Humanism had its day of predominance. Now science holds the commanding place. It is the function of the university to preserve the balance.

Conflict between science and humanism is quite like the alleged conflict between science and religion. In both cases all occasion for controversy would disappear with convincing definition. For example, suppose we define science to be "man's quest for truth about nature," and religion to be "man's quest for truth about Diety," and morality as "the accepted code of man's relation to his fellow man." We could now find very small excuse for a fuss over them.

True, this necessitates handing over to the domain of morals a lot that has been held to be religion. This would include a considerable block of the Ten Commandments. For example, "Thou shalt not steal" is not a religious precept. It is purely a moral mandate, an agreement among men of character to respect one another's property. It developed with the growth of the idea of individual property rights. It becomes impossible to maintain a quarrel between science, religion, and morals if you accept some such delimitation of the field of each. Likewise, most of the irritation among the humanists would cease if they would arrange their nomenclature. Faulty nomenclature is the cause of an infinite amount of bother and waste of time. Witness the science of anthropology.

So, if nothing else is accomplished in this paper, we must get a rational definition for humanism. Before attempting that, I wish to lay down one or two propositions that probably will not be challenged. In the process of cosmic evolution, one transcendent life-form has emerged; namely, the human species, and in this process there has been no break in the evolutionary continuity. Therefore, the study of humanity has its roots in the study of nature, and man must be considered in the light of what we know of nature's processes and laws. Nevertheless, the human being presents a transcendent form of life. With its emergence, a new world came into existence—the world of the spirit. And this world is so vast and so transcends the limit of the material universe, that it becomes a matter of great convenience to set it out as a distinct realm—a realm that is occupied by the single species, man. At the same time, let it be clearly understood that this presupposes no special creation of man and assumes no break whatever in the process of evolution.

It should now be possible to define humanism. This may serve as a tentative formula: "Humanism is the field of knowledge that has to do with all the values that pertain to the human species, and to no other." This vastly extends the scope of the humanities. The term no longer connotes simply classics, or literature, or fine arts, or all of them put together. It embraces also the whole field of the social sciences, and anthropology co-ordinates the social sciences into one integrated scheme built around the human species.

A scientific basis for humanism, then, is to be found in the science of anthropology. But anthropology must be given no restricted definition. It must be just what its name implies. In one aspect, it is simply the natural history of man and as such belongs with biology. In the other, it embraces the entire history of man and therefore is coextensive with the field of humanism. Physical anthropology which has to do with the body of the human animal,

with the physical variations which give rise to ethnic distinctions, and with the human brain as one of the essential organs of an animal nervous system, belongs in the natural science group. Cultural anthropology embracing the utilitarian and esthetic activities of man; the phenomena of social organization; the development of language and letters, the realm of human beliefs in which religion is the dominant element, is humanism in the broad sense here proposed. Anthropology is the co-ordinating science which establishes the continuity of man and nature and provides the rational classification of the humanities. If it is to take and hold this eminent place, it must cease to engage itself with trifles. It must occupy the vast realm of human relations with which it should deal. I hear occasional references to a "new" anthropology but I see not the faintest indication of the emergence of a new conception of the science of man.

The ultimate purpose of this dissertation is not merely to clarify terms and then point out a means of bringing order into a great field of knowledge. The real purpose is to make an excuse for airing some convictions on the subject of higher education. As a man of science, I want to plead for a more comprehensive view of humanism and for a full restoration of the humanities in the college curriculum. The natural and applied sciences are fundamental in education. The humanities crown the educational structure with the finest fruits of human existence, the transcendent endowments of the creature, man. They provide the ultimate satisfactions of learning.

Indices of a high order of humanism are personal dignity, altruism, intense social consciousness, reverence for cultural values, and an acceptance of the sacredness of life. The negation of humanism is seen in vulgarity, and its concomitant immorality; in the disintegration of social order—a scorn for the refined achievements of civilization; and indifference to the value of human life.

One who reflects seriously upon the state of human affairs in our time is likely to reach the conviction that we might, without loss, suspend our material conquests for a time, in order to bring human education up to a proper balance in spiritual values.

Happy Days

By J. MARGARET NEAL

Young dandelions starred the grass today
Like fuzzy curls cut from a baby's head,
And cement walks in dull grave order lay
Despite the singing of the rose-tree's red.
The lilac bush drenched you and me in mist,
The distant mountains clasped a bright cloud's wrist.
There's rain today—tall, slender, silver spears—
Oh, spring—were you so lovely other years?
The baby moon is rocking on its toe.
Oh, April! Must you—must you make it grow?
The soft, gay froth drips from the plum tree's bough:
World, world! I am so glad I lived til now,
That I hung on through winter's heartless chill,
To hear young harebells chiming on a hill.

Two Loves

By MARY FROST

I

TO STEPHEN

My love for you grew swiftly as a flame
Wind-driven, grows on yellow prairie grass.
You chose to call love by a different name;
To drain the wine, then, laughing, crush the glass.
Your subtle cruelty turned that wakened flame
To hate, white-hot, like molten, flowing steel.
Both hate and love within me have gone tame;
Unfed, those passions grew in time unreal.
Now, cool, emotionless, one wish I won,
One urge whose vital force is stricken pride;
One wish, that, since you leave me so alone,
Is ever, fretful force, to be denied.
Oh callous cynic, sweet to me 't would be
To hurt you, laughingly, as you hurt me!

II

TO JACK

So quietly you entered my wee sphere,
So unobtrusively you won a space,
I scarcely realized your presence here
And your departures unbeknown took place.
But you were kind, as is a soothing breeze
That lays cool fingers on an aching head.
Your sympathy was like tall hemlock trees
That echo the soul's moaning for loved dead.
Your humor gave me flashes of delight
As delicate as moonbeams on a pond.
Your love glowed staunchly as a beacon light:
My armored heart admitted growing fond;
Then suddenly, dear man, one day I knew
That all this while I had been loving you.

College Traditions

By F. M. DENTON

TRADITIONS may be good, bad or silly. That of "fair play" is good, that called the "spoils system" is bad; the tradition that "all men are equal" is silly.

Traditions are formulas used without thought. Whether good, bad or silly they have the power of commands.

The traditions of a college determine its atmosphere and this inspires the attitude of its students. A man's success in the pursuit of happiness depends on nothing so much as upon his attitude.

Traditions are dear to the hearts of young people. The young like to liked, and experience shows them that in order to be liked they must be "like." Thus they are conventional, they lack originality and they accept traditions. There is a tendency among modern educators to act as though the converse were true. Students are expected to take over the functions proper to teachers; to govern themselves; to prescribe their own courses and methods of study and to make their own traditions. The result is that much of the college life of today is silly. Students come to college not to get wisdom but to get degrees. Having established the tradition that intellectual work is a thing to be avoided they are wheedling their shepherds into the silly notion that "extra-curricular activities" are worthy of credit towards degrees.

Youth sees only the surface of things and mistakes process for reality. The power of this attitude has made the possession of a degree an ambiguous distinction. The degree may be, but need not be, a mark of education. All that it undoubtedly implies is that the graduate has passed through a prescribed mechanical routine of books, times, places, and formalities.

One of the silliest of all college traditions is that a good college must have a football team capable of arousing the emotions of the man-in-the-street. The man-in-the-street accepts and enjoys the tom-foolery although he knows well that the only excuse for games in a college is that they are an aid to study.

This tradition of college athletics was invented by students; it is carried on by alumni; it is pandered to by presidents and professors; it is paid for by hard-pressed parents. And yet it is deplored not only by the majority of good students but also by an important section of the players themselves. Unexpected success awaits those college administrators who will dare to challenge this silly tradition of college athletics.

The wearing of green caps and the collecting of firewood by freshmen are things unworthy to be called traditions; they are mere barbarisms. It is not true that they impart modesty to freshmen or inspire them with respect for their college. They are no more than marks of unmanly docility.

Respect for learning is dead, respect for teachers is forgotten. An athlete is more honored than any student, a coach more highly paid than any professor.

It is said that the work of a college is to cultivate the mind, but every teacher knows that the mind must be its own cultivator. All that a college can do is to provide inspiration which shall help the mind to overcome its own inertia, and food, in the form of knowledge, upon which the moving mind may feed. The food can be bought cheaply but no money can buy the inspiration. Inspiration is the gift which a college provides through its teachers. Thus the deep traditions of a college should grow out of the inspirations which teachers have given, and the memories which students take away should be memories of their teachers.

Two recent examples of the so-called originality and unconventionality of youth are notorious, namely, "jazz music" and "dutch dates." And neither of these is due directly to youth. They merely are evils consequent upon the originality of parents. Filled with remorse and compassion by the sight of the sacrifices youth had made in the War, parents allowed themselves to forget the lesson of a thousand years. They forgot that the essential prerequisite of a course in self-expression is a course in self-repression. They handed over to youth the reins of life's carriage.

Youth's first act was to seek a road to happiness which should not pass through work. There is nothing original in that idea, it is merely child-like.

Music without work meant music without beauty,—for no man ever has produced beauty except through work and pain. Music without work meant music without skill, for no man ever has become skillful without labour. The result was "jazz,"—the rattling of the dry bones of a creature having the form of music but lacking its soul.

If it be true that in recent years some soul has been put into the jazz form this is evidence of the originality of musicians who, through years of labour and pain have learned to do the impossible. Youth has had no hand in it.

The other originality—"dutch dates"—is as child-like as jazz; for it also is an attempt to find pleasure without paying for it. There is no beauty and hence no real happiness in any relation of men to women which neglects the laws of their natures—their spiritual natures being far more important in the conquest of happiness than their physical natures. Natural laws are things upon which there is agreement among all competent observers. The only competent observers of man are men of experience and culture, and by the recognized best of these during past ages the opinion has been held that the proper relation of a man to a woman is that of reverence, respect, admiration, com-

radeship, help, protection, and love. The essence of the relation of man to woman which nature has ordained is expressed by the word "father," and the root of this word —buried in an antiquity beyond Sanskrit—is "pa," to feed. Shame, therefore, on the man who takes a woman out and will not feed her.

College traditions are powerful; it is important that they should be good. To leave their creation and cultivation to the student body of a particular epoch is disastrous. They should express the highest ideals of a school; they should evolve slowly and show to the world the school's character. When traditions begin to appear which are trivial, silly or bad, they must be weeded out.

Green caps, hazing, class fights, highly paid coaching, subsidized athletics, honor systems, credit for extra-curricular activities, jazz music, dutch dates, stagging at dances, smoking on the dance floor, fraternity "initiations," campus politics, secret societies, and societies with secrets, these are among traditions which should be weeded out or cut down.

It is one of the good traditions of ordinary life that every act of destruction shall have its compensating act of construction. Thus the destruction of deplorable traditions calls for the creation of good ones. This problem is worth much thought. It should be faced from the point of view of a definite philosophy of life. If the point of view be taken that man's life is an organism, the reality of which can be seen only when the artificially defined "present" is related with the past and the future, and when the indefinable "me" is taken in relation to all the "me's" of present, past, and future history, then among the crowding ideas of traditions desirable for college life are the following:

1. That one half day per week shall be set aside for solitariness and reflection. Whitehead has said, "Religion is what the individual does with his own solitariness." Certain it is that without some solitariness, religion hardly can thrive.

2. That in view of the fact that in the mutual relationship of men and women there lies much of life's meaning and happiness, the relationship shall be guided by mutual reverence and respect. A corollary of this tradition is that no publications shall be tolerated on the campus which, from this point of view, are bad.
3. That the processes of education shall be subordinated to its reality.
4. That fraternities and sororities shall be indeed such; that they shall reproduce the best sort of home life; that they shall promote study and provide for reflection as well as for entertainment, and that there shall be no snobbishness in them.
5. That college athletics shall be nothing more than an aid to study; that they shall be intra-mural; that they shall be equally available to all students and be suitable to individual needs; that they shall be controlled and directed solely by the general teaching faculty, the coaches being teachers of physical education paid on a scale no higher than that used for teachers of other ordinary subjects of the college curriculum, and finally, that no charges for admission shall be made to the public who may wish to witness athletic exercises.
6. That political control of colleges, direct or indirect, is an evil that shall be resisted.

The Navajo Corn Chant

Translation by GEORGE HOOD

The white-corn plant's great ear sticks up.
Stay down and eat.

The blue-corn plant's great ear sticks up.
Stay down and eat.

The yellow-corn plant's great ear sticks up.
Stay down and eat.

All-colored corn's great ear sticks up.
Stay down and eat.

The round-eared corn's great ear sticks up.
Stay down and eat.

Minutes

By ALICE WILSON

Autumn leaves are winged
Minutes of our life
Golden leaves mean pleasure,
Red leaves—pain and strife.
Soon they all lose color,
Turn from brown to gray.
Then forgetful winter
Buries them away.

Book Reviews

Lorenzo in Taos. Mabel Dodge Luhan. Alfred A. Knopf. 1932. $3.50.

"Heaven knows what it is to be honest in writing. One has to write from some point of view, and leave all other aspects, from all the remaining points of view, to be conjectured." So says D. H. Lawrence in a letter to Mabel Luhan, written from Genoa, in January, 1926. And the point of view of *Lorenzo in Taos,* by Mabel Dodge Luhan, is definitely that which has been strained through Mabel Luhan herself. In following the various episodes of Lawrence from the time Mabel Luhan decides that he must go up to Taos and experience the rhythms of a primitive people and of a primitive land, the reader is definitely conscious of him solely from those emotional reactions which Mrs. Luhan wishes to pass on. The effect is somewhat akin to that of viewing a kaleidoscope of four figures—Mabel Luhan, D. H. Lawrence, Frieda Lawrence, and Tony Luhan—figures that shift and change, becoming at times almost grotesque and unreal, and fusing finally into a portrait of Mrs. Luhan herself.

She has chosen to present her material in the form of revelations, supposedly written to Robinson Jeffers, the California poet, in which she tells him of her "willing" Lawrence and Frieda to go to Taos. She narrates clearly their hesitancy in going, their final arrival, their experiences there, and their leaving. She includes her letters to Lawrence and Lawrence's letters to her from November, 1921, to January, 1930. This is presented against the background formed by the "Big House," which offers a material haven for those artistic ones having no physical sustenance, yet desiring expression.

In a foreword, Mrs. Luhan states to Jeffers: "This book tries to show you how we felt and acted some years ago." Undoubtedly she tells how they acted. But the feelings. There the reader is forced to wonder if the feelings were not

recorded from that point of view which Mrs. Luhan wants to give. She tells of her desire for Lawrence, of her constant attempts to make him realize that for her, he was the one man who could release her into creative action. She shows how he vivifies her life. Such are the facts given to the reader. With the reading of these facts, there begins to dawn wonderment. She admires him, she seeks him, but she pictures him at various times as shivering and giggling, and with that, the illusion snaps.

Mrs. Luhan stresses at times her fundamental need of Tony—Tony, the Taos Indian who is now her husband. According to her, he typifies that fundamental rhythm which rises from an ancient civilization and a primitive land.

For the devotees of D. H. Lawrence, *Lorenzo in Taos* will possibly offer a deeper understanding of the man; for the casual reader, it will offer an amusing narration of artistic life in Taos.

ELSIE RUTH DYKES CHANT.

The Universe in the Light of Modern Physics. By Dr. Max Planck, Professor of Theoretical Physics at the University of Berlin. Translated by W. H. Johnston, B.A. Published by W. W. Norton and Co., Inc., New York, 1931.

During the period from 1905 to 1915 of Einstein's development of his Theory of Relativity the Quantum Theory of Max Planck lay in an uneasy sleep. It is the theory which pictures light energy as corpuscular. Relativity makes space-time a stationary unbroken continuum. It is hard to reconcile such a theory with that of Planck. There is, however, no mutual contradiction of the two theories. While developing his Relativity, Einstein has made important contributions to Planck's Quantum Theory. The newest of all the theories of physical science is Wave Mechanics in which an attempt is made to unify Relativity and the Quantum Theory.

The little thing called a Quantum of Action, for the invention of which Max Planck is responsible, is a bee in the bonnet of physical science. It is an atom more fundamental than the electron. No "physical conception" of it is possible. We picture the electron as a material particle. More fundamental than matter is "action"—the product of energy and time. We think we can picture *"a particle of matter at a given instant."* Yet surely a particle of matter needs time in which to have its being and a *particle-second* is more "real" than a particle. Matter and energy being—as Relativity regards them—of one common nature, we then see that more fundamental than an atom of matter is an atom of "energy times time," that is to say an atom of "action."

Planck is one of the greatest scientists of the present age and his views of the universe in the light of modern physics are of interest to all men. In the book under review he is concerned to make clear his objection to being called a "determinist."

The conflict between determinism and indeterminism has found its way into physical science through the refusal of the electron to behave lawfully. Within the atom which is its home, the electron's behavior has baffled all prediction. It acts like a creature with "free-will."

Planck says (p. 51) "Today, indeed, there are eminent physicists who under the compulsion of facts are inclined to sacrifice the principle of strict causality in the physical view of the world." . . .

"So far as I can see, however, there is no ground for such a reunuciation. For there always remains the possibility that the reason why it is impossible to give a definite answer resides, not in the nature of the theory, but in the manner in which the question is asked."

Much of this book is too technical to be understood or even found interesting by the reader who has not studied modern physical theories, but it is so planned that consid-

erable omissions may be made without loss of the book's thread. On pages 90 to 93 the question of free-will is dealt with very specifically. The argument and its wording are so simple and so carefully thought out, that any attempt at a brief interpretation is apt to become misleading. Extensive quotation is thus warranted.

"The existence of strict causality implies that the actions, the mental processes, and especially the will of every individual are completely determined at any given moment by the state of his mind, taken as a whole, in the previous moment, and by any influences acting upon him coming from the external world. We have no reason whatever for doubting the truth of this assertion. But the question of free-will is not concerned with the question whether there is such a definite connection, but whether the person in question is aware of this connection. This, and this alone, determines whether a person can or cannot feel free. If a man were able to forecast his own future solely on the ground of causality, then and then only we would have to deny this consciousness of freedom of the will. Such a contingency is, however, impossible since it contains a logical contradiction. Complete knowledge implies that the object apprehended is not altered by any events taking place in the knowing subject; and if subject and object are identical this assumption does not apply. To put it more concretely, the knowledge of any motive or of any activity of will is an inner experience, from which a fresh motive may spring; consequently such an awareness increases the number of possible motives. But as soon as this is recognized, the recognition brings about a fresh act of awareness, which in its turn can generate yet another activity of the will. In this way the chain proceeds, without it ever being possible to reach a motive which is definitely decisive for any future action; in other words to reach an awareness which is not in its turn the occasion of a fresh act of will. When we look back upon a finished action, which we can contemplate as a

whole, the case is completely different. Here knowledge no longer influences will, and hence a strictly causal consideration of motives and will is possible, at least in theory.

"If these considerations appear unintelligible—if it is thought that a mind could completely grasp the causes of its present state, provided it were intelligent enough—then such an argument is akin to saying a giant who is big enough to look down on everybody else should be able to look down on himself as well. The fact is that no person, however clever, can derive the decisive motives of his own conscious actions from the causal law alone; he requires another law—the ethical law, for which the highest intelligence and the most subtle self-analysis are no adequate substitute."

Clear and definite though this argument is, we doubt whether many will accept patiently the suggestion that the notion of will-freedom is a self-delusion: a delusion which we never should entertain if our knowledge were more complete. After all, our ultimate criterion of truth is our own feeling. Absolute truth is a matter of taste. To most men the feeling of will-freedom is so real that there is no room for discussion of its reality. If will-freedom be unreal then nothing in life is real. This does not mean that we possess any such powers as "freedom of choice," or "creative ability." The will-freedom of which we are sure—about which no discussion can arise—is the thing which distinguishes life events from physical events, namely, it is the freedom of our thoughts and actions from the tyranny of the law—a law never departed from in the events of the world of physical science—that what has happened before is likely to happen again.

Planck has failed to mention explicitly this aspect of will-freedom, but leaves room for it in the last sentence of our quotation, "he requires another law—the ethical law. . ."

F. M. DENTON.

Science and First Principles. By F. S. C. Northrop, Associate Professor of Philosophy, Yale University. Published by MacMillan in 1931, Price $3.

The publisher's "blurb" about this book attracts the scientifically minded reader with the compelling force that a good menu has on a hungry epicure. Its extracts from reviews are carefully chosen. Their hasty perusal leaves the impression that the book is hailed with praise not only by authorities in the fields of philosophy and of literature but also by renowned men of science.

Having read the book, my feelings were so mixed and so uneasy that I turned again to the fascinating "blurb." Taken as a whole, the blurb is equivocal, and I find it not inconsistent with the view that in spite of its many good points the book has no permanent value as a contribution to scientific thought.

It is written with aggressive confidence. Its author roams widely over many of the fields of science and shows interest in them all, but in none of them has he the knowledge of an expert or the modest love of an amateur.

Einstein's Relativity provides Professor Northrop with pitfalls. For instance, on page 65 he writes, "Since the square of c (186000 miles per second) is a velocity . . ." This may be a mere slip but had the author been as familiar with elementary mechanics as he surely is with household shopping he could no more have called c squared a velocity than he could have asked for a yard of milk.

The book is written with such care and skill that the impression is left of deep understanding. For instance, pages 76 to 83, on the General Theory of Relativity contain so much that is either sound or plausible that on a first reading its author's apparent failure to grasp the distinction between the special and the general theories is obscured. On page 80 we read, "A given geometry or chronogeometry, whether it be Euclidean or Riemannian, like a gravitational field, can be brought into or put out of exist-

ence by a suitable choice of reference body." This is a mixture of nonsense and misconception. How can a geometry be like a gravitational field? What sense would there be, for instance, in saying "Euclidean geometry is like empty space"? And how can a geometry be brought into or put out of existence by a suitable choice of reference body? Does the author mean that the need of using any particular geometry in describing physical events may be removed in favor of some other geometry by an alternative choice of reference frame? That, though misleading might be intelligible, but the suggestion seems to be that there is nothing absolute about a gravitational field. Such a suggestion is wrong except in the special case never met with in nature in which the field is homaloidal. It is the absoluteness of nature's gravitational fields that demanded the general theory.

On page 127, "But this tensor only describes a motion of infinitely short extent." This statement seems to show complete unfamiliarity with the fact that Einstein's equations deal with elements (ds) of space-time interval, not with distance or motion.

There is no need to pick out many specific examples of the use of words which, though they look scientific have no scientific meaning. Such examples abound. Here is one, (page 85), "For mathematics indicates that the tensor, the values of the variables of which will define a relative space-time and remain invariant in form for all possible transformations, or in other words for any shift of reference frame, is determined completely by the number of dimensions of the metric which appears in a given frame." What are the variables referred to? If they are the potentials then it is untrue to say that they or their forms are invariant. Invariance belongs not to the potentials but to the gradients of the gradients of the potentials.

The discussion on pages 158 to 164, of probability and the second law of thermodynamics is entertaining, but the

logic is false by which the conclusion is reached that the second law "must be true half of the time and false the other half." The point seems to have been missed that at the moment when by chance some given degree of organization has been reached, there are more ways in which, by further shuffling, this organization may be decreased, than ways in which it may be increased.

The book covers, in an interesting conversational manner, a wide range of scientific fields. Its object appears to be the disclosure of a big idea—that of the "cosmic atom"—which shall illuminate science and provide the clue to the solution of all its difficulties. I have found insuperable difficulty in trying to make sense of this part of the book, or to find illumination or inspiration in it. One or two quotations may make comment unnecessary. On page 216, we are introduced to the "cosmic atom." "An analysis of certain strategic conceptions in relativity and atomic physics and general physiology has forced us to the discovery of a new theory of the first principles of science. Nature is constituted not merely of the electrons of traditional physical theory, but also of one large spherical physical macroscopic atom which surrounds and congests them. The congestion arises solely from the fact that the diameter of the macroscopic atom is finite in length and so short relatively to the very large finite numbers *(sic)* of microscopic atoms which it contains, that they are crowded together to form an equilibrium."

Page 273: "The physical character of the macroscopic atom has additional significance for theology. It means that God has a body. Otherwise it would be devoid of the power to change the direction of motion of the microscopic particles. This makes it evident that God is not omnipotent. For the microscopic particles possess energy also." Page 274: "In fact, were God without a physical body, he would not exist."

Page 275: "Now, that which distinguishes the macroscopic atom from other simple and complex substances is its perfect spherical form. Since the formal is what we mean by the rational, it follows that the distinguishing attribute of God is rationality. Moreover, since the spherical form of the macroscopic atom is perfect, and this perfect form constitutes the content of its consciousness, it follows that this atom is the most perfectly and unequivocally clear-headed of all real objects."

Page 275: "God is not, as Aristotle supposed, a musty museum of eternal forms. Instead, the divine is the one embodied perfect atomic form, the sphere, which because of its relation of inclusion to the many recitilinear forms of microscopic atomic motion, generates, in the logical sense of that term, the complex forms of the world of imagination and observation."

F. M. DENTON.

Solitude

By FRANCES E. ANDREWS

Oh, pity that man who holds no joy nor peace
In solitude upon a quiet hill
Remote from all where he may find release
From sham or cares that bind against his will—
Or on the stoop in front of his abode,
Alone, a man may meditate and find
The answer to his questions, and his load
Of doubts will cease to rack his tired mind;
The vastness of all nature and its power
Will minimize the ends men seek to gain,
The years that nature holds against the hour
Of man will show which greatness will remain;
For nature shares its wisdom only when
Man deems it greater than the brains of men.

Contributors to This Issue

Dr. John D. Clark, head of the chemistry department at the University of New Mexico, has been a frequent contributor to the Quarterly.

Dr. F. M. Kercheville, who came to the University of New Mexico from the University of Wisconsin last fall, has been quick to see the opportunities of New Mexico. It is to be hoped that Quarterly readers may hear from him often.

Dr. Jay C. Knode, in his experiences as an educator, has been in positions from which he could study to great advantage every phase of the work and its many problems.

Dr. Edgar L. Hewett is known to Quarterly readers. Head of the archaeology department of the University of New Mexico and Director of the School of American Research, he also is recognized everywhere as an authority on Ancient America.

F. M. Denton, A.G.C.I., F.G.C.I., has been a frequent contributor to the Quarterly. He is head of the electrical engineering department of the University of New Mexico.

Jose Garcia Villa is again a contributor to the Quarterly. Readers will recall a story written by him for a previous issue. Mr. Villa has just received his bachelor's degree from the University of New Mexico.

Mrs. J. B. Montgomery McGovern has traveled widely and studied much abroad. She is a graduate student at the University of New Mexico.